COMMISSION OF CONSERVATION

CANADA

AGRICULTURE IN ONTARIO

UNSANITARY HOUSING

COMMISSION OF CONSERVATION
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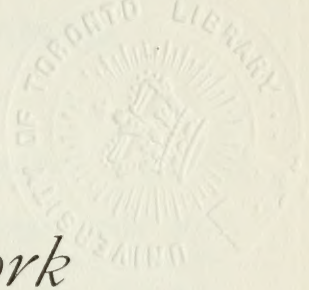

Agricultural Work in Ontario

By

C. C. James
Deputy Minister of Agriculture for Ontario

Unsanitary Housing

By

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AGRICULTURAL organization in Ontario began after the calling of the first legislature in 1792. Lieutenant-Governor Simcoe in his planning for the development of the province assisted in the organization, and probably was the prime mover. Down to 1846, societies here and there throughout the province gave stimulus to the growing of grain, the importation of stock and improvements in agricultural methods. In 1846, a provincial association was formed, through which, in time, associations for the improvement of the various pure breeds of stock came into existence. Encouragement and direction were given by the government, and on the confederation of the provinces in 1867 increased interest was manifested. The first important step forward was made in 1874 when the Agricultural College at Guelph was founded. The Royal Commission on Agriculture in 1881 traversed the province from end to end, investigating conditions and arousing interest, and the publication of their report in five volumes contained a mass of information and made suggestions that have produced an effect lasting to the present day. Following immediately after, and as a direct outcome of the Commission, there was organized the Ontario Bureau of Industries, whose first business it was to collect and publish reports on crops, live stock, and general agricultural conditions. When, in 1888, a department was formed separate from the other executive branches of the government, this Bureau became the nucleus of the department, and to the latter was added gradually the work carried on by the various provincial associations.

Branches of the Department

As the work along various lines developed and new fields were opened up, it had to be systematized and the department is now organized into nine branches, each in charge of a responsible directing official. These branches are as follows:

1. Ontario Agricultural College;
2. Ontario Veterinary College;
3. Agricultural and Horticultural Societies;
4. Live Stock Branch;
5. Farmers' and Women's Institutes Branch;

6. Dairy Branch;
7. Fruit Branch;
8. Colonization Branch;
9. Statistics and Publications Branch.

In addition to the above, there is work of various kinds which is still in the formative and growing condition, but in time it will, no doubt, be organized into separate branches with an official in charge of each. Farm forestry and district or departmental representative work may be particularly mentioned. As showing the expansion of the work, it may here be mentioned that in 1890 the total expenditure under agriculture and immigration was $177,014.00, and in 1910 it had increased to $748,349.00. These do not include expenditures on capital account. Deducting revenue, the net expenditures were $156,136 in 1890 and $634,892 in 1910.

A Work of Education

The work of a provincial Department of Agriculture is educational. The foregoing list of branches shows a great variety in the energies and expenditures. An acquaintance with the geological and geographical conditions of Ontario and a knowledge of the composite nature of the people of the province will show how varied are the agricultural lines of work and why it has been found necessary to develop a department with many branches. There are lines of work not suggested by the division above given but which are included. Thus under the Horticultural Branch, city and town improvement societies and vegetable growing are taken care of, and apiculture and entomology are a part of the Fruit Branch. Poultry work comes in under Live Stock. We have in Ontario soils and climates in great variety, and we also have a farming community of a complex nature. The original settlers were of varied origin. England, Scotland, and Ireland contributed extensively. French-Canadian settlements are to be found in the east, southwest and in the newer districts of the north. German settlers are to be found in large numbers in a half dozen counties of the middle west. Further, it is to be noted that Ontario, through favourable natural conditions, has become a great manufacturing province. Agriculture, as a consequence, is an interesting problem.

A Stationary Rural Population

The rural population of Ontario, in 1909, stood exactly at the same figure that it did in 1872, viz., 1,050,000. In the latter year, however, the total town and city population was just about what Toronto holds to-day, 375,000. The urban population is now over one and a quarter million. During these years, in addition to this urban increase of nearly 900,000 people, we have had the trek to the great West, now

entering on its twenty-fifth year. Taking both of these movements into consideration, the wonder is that the agricultural population has stood the strain as well as it has. Looking over such statistics as are available and studying a number of districts personally as I have been able to do during the past few years, I have come to the conclusion that agriculture in Ontario has entered upon an upward movement that is already making itself felt. Rural population showed a steady increase from Confederation in 1867 to 1886, when the Canadian Pacific Railway was opened. From that year the decrease was just as marked down to 1906. Now we are on the upgrade again, though the increase as yet is not very great. In addition, there is a decided increase in the total farm values of the province and the total values of farm products also are showing most encouraging increases year by year.

The Solution: Intensive Farming

Intensive agriculture and the production of high grade food are what we are aiming at. Those who have studied the problem are aware that it is not an easy task. Again and again we are advised of what the well-farmed countries of Europe are doing—and it is well to keep this example before our people—but, of course, the conditions are quite different. There, land is dear and labour is cheap; here, land is cheap and labour is dear. It becomes, therefore, an interesting and complicated problem to work out, with cheap land and dear labour, plans and methods of work that will result in procuring adequate reward for labour and at the same time conserve our soil resources. As far as Ontario is concerned at the present time and with our present style of farming, it is not so much a question of conserving our soil as conserving our labour. What we are aiming at is to make the labour now being expended more effective. We have some millions of acres that need draining. If drained, they could be worked more easily and they would produce more abundantly,—hence, a campaign for underdrainage is being carried on. We have in Ontario the finest apple growing section of large area on the North American continent. We have a few thousand trees well cared for, productive of good fruit, but we have (I think I am not putting it extravagantly) millions of trees neglected, uncared for, whose production is uncertain and more or less unprofitable. We have been demonstrating in the past few years that in the neglected apple orchards we have one of our greatest assets,—hence, our orchard demonstration campaign. We have over one million milch cows on the farms producing on the average not over 4,000 pounds of milk a year. If 200,000 of the unprofitable animals were exterminated, there would be a saving of labour, a saving of food, and

a decided increase in profits,—hence, our dairy campaign. And so we might go on along other lines. The more intelligent use of labour is the key to success in Ontario agriculture.

How the Department Does its Work

Now let us see how the Ontario Department of Agriculture is trying to assist in this movement. The Ontario Agricultural College was started in 1874. For many years it led a precarious existence. It had few students and few friends. It did not get a grip upon the agricultural community. To-day and for some years past, it has been full to overflowing. I have seen it with 134 students. For some years, over 1,000 have taken courses of one kind or another. How was this brought about? First, the members of the teaching staff went out from the College to address farmers' meetings and to become personally acquainted with the farmers and their work. Second, the experimental work of the College was extended to several thousand farms through the work of the Experimental Union. Third, farmers have been brought to the College, 40,000 every year, to see for themselves what is being done. In short, the College in isolation was of little use; when, however, College and farm were brought into direct contact, sympathy, support and co-operation followed.

Let me give you another example. Ontario has become a great dairy province, noted for its production of cheese. Ten or twelve years ago its cheese could be classed as good, bad and indifferent. There were dairy schools, there were dairy associations, there were dairy reports and bulletins. These were necessary and effective as far as they went, but the trouble was they did not go far enough, they did not reach the unprogressive, indifferent cheese maker and milk producer. For some years we have had over thirty trained expert cheese and butter makers going from factory to factory, demonstrating on the spot, giving that help which can be effective only when it is personal and applied at the critical time. What is the result? Those who are in the trade tell us that Ontario cheese and Ontario creamery butter never graded higher than it did in 1910. Moreover, we have been able to enact a law that after January 1st, 1911, no one can have charge of a factory as chief maker unless he holds a certificate of qualification, and every factory is registered. All this is a direct result of taking the best dairy methods right into the factories and gradually we are bringing our instructors right into the dairy barns of the milk producers.

Reaching the Farmer

It is a natural sequence from this experience that if we are to get all or a majority of our farmers to drain their land, to sow the best seed, to care for their orchards, to test their cows, to raise only profitable stock, and,

in brief, to get the best results for the expenditure of labour, we must get into close personal touch with them and give sympathetic direction to their work. And so, in 1907, we were enabled to try out the experiment of personal instruction on a comprehensive scale. A Department of Agriculture located at the capital of the province is necessary for direction. An Agricultural College at some place convenient of access is all right; it must be located somewhere and we must have such an institution for training the men who are to do the teaching and directing. Experimental farms are needed for trying out certain lines of work and for getting results that will be of practical use. But, after many years of experience, we found that these were limited in their usefulness, they alone would never regenerate the great mass of the farmers,—they would help those who wanted to be helped, who were seeking help and who would get help because they appreciated the value of such assistance, but the great majority of the farmers would be moved by none of these things. The Department of Education also wished to inaugurate some plan of agricultural instruction in rural shools. Through the united efforts of the two departments, we finally decided on the plan of locating graduates of the Agricultural College in various counties as teachers of agriculture and leaders in agricultural improvement. In other words, we established branch offices of our department and moved the Agricultural College nearer to the farmer's home. We made it possible for our representative to go into the farmer's field, his orchard, his dairy, and, what gave him greatest confidence, right into his home. Further, he was a resident, not a transient, and as soon as the formalities of becoming acquainted were over, he won the farmer's confidence by his sincerity and his ability to help.

In 1907, the government started work in six counties; in 1910, fifteen counties were provided with offices, teachers and assistants. So great has been the success and so much appreciated the work that the question now is how to meet the demands from other counties. The men for the work are carefully selected. Their salaries are provided through the Department of Education. The office expenses, salaries of assistants and incidentals are paid through the Department of Agriculture. By statute, the county council is required to make a grant of $500 each year towards expenses. Each of the men is attached to a high school where he carries on each winter a short course in agriculture varying in length from one month to three months. In time, we hope to have permanent classes established. Up to the present, the great work has been that which has been planned at, and directed from, the central office; short courses in live stock and seed judging, drainage demonstrations,

seed fairs, public school competitions in growing small crops, demonstrations through reviving old orchards, fertilizer experiments and the carrying on of improved methods by the farmers themselves on their own farms. Let me again emphasize this last point,—the great hope of improvement in the average farmer lies, not through sending him a report or pamphlet, not through talking at him in an institute meeting, not through doing something for him on an experimental farm, but through helping him to do some work on his own farm wherein he gets improved financial results through his own efforts. This is the secret of success in the work.

The general aim of this work is to bring the best agricultural methods close to the farmer, to get his sympathy, to arouse his interest, to stimulate him to better methods. When a man is selected for a county he is told to study his people, their condition and their needs, and to arrange his work accordingly. He is given a fairly free hand, though, of course, he is in close touch with the Department and all its branches. The first result noticed is the increased interest manifested by the farmers. Probably for the first time they realize that the complicated government organization has been created for a specific purpose and that purpose is to assist the farmer to a better and more prosperous living. Once that feeling is abroad, the application comes easy. And now the whole agricultural organization comes into use. This "man on the spot" brings into his county all those resources of the government departmental organization about which the farmer had some hazy knowledge but whose usefulness he had questioned, and "professors" and "experts" become real men like themselves whose object is not to pose as men of exclusive distinction and drawers of salaries, but men able and willing to give real help. With the farmer, the age of talk has gone by, the day of demonstration is here. We have a thorough organization of the agricultural forces along many lines. Now we are bringing all this to bear upon the farmer's work and the results are coming through the means of direct demonstration. During 1910, we had over one hundred men engaged in various ways, planning drainage systems, teaching how to make cheese and butter, pruning and spraying trees, selecting seeds and supervising growing crops of all kinds, organizing co-operative associations and helping in the marketing of products.

The Results

And what is the result? Farmers who were indifferent or opposed to government interference and who criticized the expenditure have become enthusiastic, the attendance at practical demonstrations has increased in an astonishing degree, and there is an awakening along agricultural lines such

as we have never known before. There is something in the agricultural air that indicates progress. Intensive agriculture and specializing in production are noticeable, and, where this movement is permanently fixed, there is a decided increase in farm values. The two contributing elements are, first, demonstration of better methods; and, second, the permanent location of qualified men to inaugurate and direct the movements. The government began this movement in 1907. We now have fifteen counties equipped with representatives. We aim at carrying on the work in every county and district in the province. It costs money of course to do this work,—$1,200 for salary and about as much more for the office, assistant and running expenses,—but there is no expenditure of public money that produces greater results. The fact is, that it renders so effective all the other expenditures for agricultural purposes. I venture this prediction, that when we have the province of Ontario manned in all counties and districts and fifty representatives with their assistants have got down to work, we can double the output of the farms of Ontario in the next ten years. It is a work worth while spending the money of the people upon, for the whole people will receive the benefit.

COUNTY EXTENSION WORK

The statements in the preceding paper as to the value of demonstration work are general. With a view to giving further information and showing the varied lines of work possible, the following condensed reports from county representatives, of the work carried on in four counties, are added as contributing valuable information and suggestions.

Dundas County

Summary of Work.—1. Making the personal acquaintance of as many citizens of my district as possible and the revealing of myself to them that they may have confidence in me.

2. Advisory work from office, personal and by correspondence.

3. Three months' Short Course for boys in Collegiate Institute.

4. Organizing and conducting of three day Short Courses (5 Short Courses, 1 Fruit Institute).

5. Organizing of Farmers' Clubs; supervision of these Clubs.

6. Assistance in conducting excursions to places of learning—two to Macdonald College during 1910.

7. Preparatory work leading up to organization of Horticultural Societies.

8. The interesting of Agricultural Societies and farmers in Standing Field Crop Competitions. (Three were started in 1910).

9. Distribution to good farmers of seed grain from prize winning fields in Field Crop Competition in 1909.

10. Demonstrations (three) in spraying of mustard.

11. Making of drainage surveys for farmers. Drainage demonstrations.

12. Demonstration of value of underdrainage by draining of low-lying portion of school grounds, 6 acres.

Results.—1. Land ready for seeding and was sown 3 to 4 weeks earlier than other low-lying land of vicinity.

2. Oats and barley ripened 3 to 4 weeks earlier than other fields of same crops. Yields large.
3. Large crops of sugar beets and mangolds,—30 to 51 tons per acre according to variety—on what was before a useless swamp.
4. Large crops of potatoes, yield varying from 340 to 591 bushels per acre according to variety.

13. Conducting of demonstration plots on school grounds. Plots 3 acres in extent.

Points demonstrated in 1910:

1. That large crops could be grown after underdraining on what was before wet land. Whole scheme a demonstration of value of underdrainage.
2. Experiments in dates of seeding on (1) drained land, (2) undrained land.
3. Experiment on rates of seeding.
4. Different methods of sowing alfalfa.
5. Growing of alfalfa on low drained land. Will require two or more years yet to complete demonstrations.
6. Test of twelve different varieties of oats to show yield, date of maturity, strength of straw, freedom from rust, and to give farmers an opportunity of seeing different varieties grown under the same conditions.
7. Test of twenty varieties of corn to give farmers an opportunity of seeing nature of variety, amount of fodder, yield of grain, date of maturity, etc.
8. Test of mangolds, carrots, turnips,—a special effort to grow large crops of roots in order to interest dairy farmers in growing such crops.
9. Value of uncommon crops as rape, kale, field cabbage, Test of same. Millets, variety tests.

10. Test of 20 varieties of potatoes—yield of from 340 to 351 bushels per acre obtained with late varieties.

11. Sale at market prices of 100 bushels of above potatoes for seed purposes.

12. Experiments with insecticides and fungicides.

14. Conducting of fertilizer experiments on three different farms.

15. Conducting of stock judging competitions for boys at fall fairs, four in all.

16. Exhibit at County Fair, Morrisburg. Insects, plant diseases, weeds, products of sprayed and unsprayed orchards, spraying materials, apparatus, etc., produce of Demonstration Plots, distribution of bulletins, etc.

17. In 1909, during Fair, actual drainage work going on. Taking of levels, grading, etc., demonstrated.

18. Demonstration of good orchard culture by personal (assistant and myself) care of four orchards; constant supervision and direction of care of another.

RESULTS:—

Orchard No. 1: Marked difference in yield and quantity of fruit on sprayed and unsprayed part.

Area,—1 1-3 acres; 43 trees.

Total yield, 143 bbls.

Unsprayed part,—One row of trees through centre of orchard—total yield of those 5 trees, 7 bbls.; less than 1 bbl. of No. 1 apples.

Net returns to owner, $400, (apples sold on trees). Cost of spraying material, $7.90.

No record kept of cost of pruning or cultivation.

In unsprayed orchards in neighbourhood, apples scarce and of worst quality.

Orchard No. 2: (four miles distant from No. 1).

14 trees McIntosh, 16 trees Fameuse—$350 worth of apples harvested at market price. No check trees kept. Cost of spraying material $5.69.

In nearby orchard from which 100 bbls. were sold in 1909, less than 10 bbls. were of inferior quality in 1910. In adjoining orchard, apples worthless. (This is the case with all unsprayed McIntosh and Fameuse apples this year). Fruit from this orchard taken by Dominion Department of Agriculture to World's Fair, at Brussels.

Orchard No. 3: (Two miles from orchard No. 1 and orchard No. 2).

No records kept, but fruit on sprayed trees 15 in number, first-class. One unsprayed tree had not an apple although there was plenty of blossom and the fruit set well all through this section in 1910.

Orchard No. 4: Fruit clean.

In the above four orchards work was done by my assistant or by myself.

Orchard No. 5: (Located 8 miles from other nearest demonstration orchard.)

Pruning, care and spraying done under our direction. Area, was 3 acres, McIntosh.

An orchard which seldom before grew marketable fruit.

Fruit sold on trees for $350, and graded nearly all firsts and seconds. Three check trees—fruit useless. In unsprayed orchards of neighbourhood, fruit useless.

Lanark County

Lanark county exports no grain; it is not as yet a fruit county and its climate and soil do not lend themselves to the production of special crops. It is primarily a grazing county and the principal industry is thus largely under the supervision of the Dairy Instructor. Consequently, it is not easy to show big results in any one line through the work of this office. With the stimulation of production, the elimination of waste and the promotion of agricultural interests in general as our governing policy, we have, however, endeavoured to make the most of our opportunities and steadily to increase the sphere of influence of the office.

In this report no attempt is made to touch upon the work of the office as an information bureau. This has been pretty well covered in a previous report and it is sufficient to say that the number and variety of questions handled have greatly increased with each season, as has also the area represented by those making use of the office. Neither have I referred to the school work nor to meetings addressed within the county and at outside points.

During the fall of 1909, we added three new Farmers' Clubs to our list—Ramsay Township, Carleton Place and Pakenham. These Clubs all held meetings every three or four weeks, and in addition to the interest and enthusiasm which they awakened among the farmers themselves, they afforded us additional opportunities for keeping in touch with the more remote parts of the county. Our largest Club, South Lanark, which has had three successful seasons, has been one of our most important mediums in our work locally. While the discussion of farm topics and topics of general interest has constituted one of its most important features, we have, in addition, made use of it in the following ways during the past two seasons:

1. To promote rural telephone service throughout the riding;

2. To carry on co-operative buying of clover and grass seed through local seedsmen in order to secure purity and No. 1 quality;

3. To import seed corn on the ear;

4. To import tile in carload lots;

5. To establish one variety of potatoes as the representative variety for this section;

6. To run an excursion to Macdonald College in August, 1909;

7. To inaugurate an annual ploughing match, October, 1910.

We have now two cow testing associations in the south riding, both doing good work. Since the inauguration of the first one three years ago, we have looked after the secretary's duties in this office.

Certainly nothing undertaken by the Department through us has increased our sphere of influence so materially as the holding of Short Courses, conducted by such men as President Creelman, Prof. G. E. Day, Prof. C. A. Zavitz, Dr. Reed, T. G. Raynor, C. M. McRae and L. H. Newman. Perth, Carleton Place, Almonte and Lanark village have already been favoured with these, the two latter in the spring of 1910. At the present time, we are organizing one in Smith's Falls. Each event brings us in touch with anywhere from 300 to 800 farmers. The direct benefits have been noted in innumerable ways in subsequent seasons.

In June, 1910, we held four very successful Weed and Seed Meetings at Almonte, Middleville, Macdonald's Corners and Maberly, addressed by Mr. Simpson Rennie.

In Lanark county, we have some 90,000 acres of swamp and slash land, much of which is now being brought under cultivation with the opening up of municipal and award drains. In a great many instances, this muck land has not given satisfactory results after the first few years. For three seasons we have been conducting extensive fertilizer experiments on different types of muck with a view to rendering these areas profitably productive. These experiments have been conducted at different points throughout the county and have been under our direct supervision. On the whole, the results have been most encouraging. As all of our experiments this year are with root crops some of which have not been harvested, I am unable to give figures for this year's results. In one case where oats were grown, the yield was increased from 15 bu. to 40 bu. per acre, at a cost of about $5 per acre. At the same point, the influence carried over from the preceding year made possible an increase of 15 bu. over the unfertilized. Equally good results were obtained last year with millet, rape and mangolds at other points.

During the past season, we have concentrated on underdrainage work. In the county as a whole, and particularly in South

Lanark, very little underdrainage had been done previous to 1907, and when we first took up this work, we found four obstacles barring progress in this particular line:

1. A lack of appreciation of the benefits to be derived;
2. Lack of technical knowledge in laying out systems;
3. The absence of tile factories in any part of the county;
4. Lack of experience in digging drains to grade, laying tile, etc., and inability to secure competent labour to do this work.

During the seasons of 1908 and 1909, we overcame the first difficulty to a certain extent in our propaganda work by means of addresses, newspaper articles, demonstrations, etc.

The second difficulty was met by offering our services free of expense in making surveys, laying out systems, preparing plans, etc. During the fall of 1909, some of the systems laid out by us were partially installed by hand labour. One of these fields made an excellent demonstration field, as it chanced to lie beside a leading road and had previously been deemed impossible to drain satisfactorily. This spring, when adjoining fields lay sodden with water, the drained field was dry and in first-class condition. It was in shape for seeding fully three weeks before neighbouring fields, but was kept for corn. This corn crop, grown where corn had never been grown previously, was conceded to be the best crop within a radius of several miles. Not only was it tall and vigorous, but it was uniform over the entire field and was well matured. Needless to say, we had a great many requests for drainage assistance in that section this year, while the owner of the field himself put in nearly a carload of tile this fall.

The difficulty in obtaining tile in the Perth district was overcome through our local Farmers' Club. By buying co-operatively in carload lots we have been able to lay down tile in Perth at a cheaper price than they can be bought right in the yard at many tile factories.

This year, with another wet, backward May to back us up, we launched another drainage campaign, with the result that since the first of June we have devoted every available day and half day to drainage work in various parts of the county. An opportunity to secure the services of a steam ditcher from the province of Quebec assisted us in overcoming the fourth difficulty, and incidentally gave underdrainage the greatest impetus it has yet received in this district. The owner of the ditcher placed himself in our hands, took only such work as we laid out for him, followed our grades, etc., and stayed with us for two months, digging at the rate of at least 2,000 feet per day and as much as 3,000 when conditions were favourable. Breakages, due to our stony land, prevented us accomplishing as much as

we might have in the time, but so delighted were the farmers with the work accomplished that it is probable that next year a ditcher will be owned co-operatively here.

Corn has become one of the staple crops in this county and in many sections over seventy-five per cent. of the farmers have silos. Except where an occasional farmer selects Flint corn for seed, all of the seed corn is imported. Naturally, in bad seasons such as that of 1910, a great many farmers have been badly disappointed in their seed. This we have sought to overcome; first, by promoting buying on the cob; second, by testing samples for all local seedsmen; third, by attempting to develop a strain of Dent corn adapted to this locality. Buying on the cob has been followed up by the South Lanark Farmers' Club for the past two seasons. Comparing the seed obtained by the members this year with that sold in bulk, the new method was worth a great many dollars to those who took advantage of it. In the spring of 1909 and 1910, we tested seed corn for all local seedsmen as soon as their shipments arrived, and practically all used our reports as their only guarantee. More than one lot which failed to come up to standard was shipped back. In our seed selection work, we started with a strain of corn developed for early maturity in Wisconsin. During the past two seasons, we have grown an acre of this corn on the "ear to the row" plan and have selected each year for early maturity. We have succeeded in maturing first-class seed both years and the crop has excelled everything in its neighbourhood, not only in maturity, but also in type. The demand for seed exceeded the supply last year and probably will this year.

Ever since this office was opened, we have been emphasizing the value of alfalfa. This year fully one-fifth of the farmers in the Perth district have a small patch of alfalfa, and while all have not made a success of it, the possibility of growing it here successfully has been amply demonstrated. In the spring of the year, alfalfa enquiries greatly exceed all others received. Last year we forwarded upwards of fifty applications for nitro culture and directed the forwarding of many others. We have been experimenting with the crop ourselves and have succeeded in growing it without a nurse crop.

Prince Edward County

The experimental work last summer as well as this summer has consisted in conducting practical experiments on various farms throughout the county. Experiments with fertilizers on tomatoes, sweet corn and potatoes were conducted a year ago. This work was taken up more extensively this season. Seven experiments with sweet corn, five with potatoes and twelve with tomatoes, were carried on in different parts of the county. Farmers

growing these crops, and particularly canning crops, are unable to obtain sufficient manure and are required to purchase commercial fertilizers. Up to the present time, they have been buying mostly ready mixed and cheap fertilizers. We arranged, that these experiments should be made by the most careful farmers, who are expected to report to us and also to the Farmers' Club meetings in the winter. In most cases, they have cared for the plots and kept accurate records. Wherever possible, the experiments were conducted near the road and attracted much attention. The amount of commercial fertilizers used will be greatly increased another year.

Tests were conducted with varieties of corn on twenty-four different farms, in some cases sweet corn, others Flint and others Dent. Tests were made with Common Mandeschuri and O. A. C. No. 21 barley on fourteen different farms. The barley was distributed to students who had taken the Short Course last winter, and there are already many enquiries as to where to obtain seed of these varieties for next season. Two varieties of peas were distributed, some of the seed having been obtained from the Winter Fair and from the prize-winning lots in the Field crop competition.

Quite a number of farmers have been conducting experiments in connection with the Farmers' Clubs, the Club assigning a certain experiment to each of several members. In some sections, they have been testing fertilizers. For instance, at Wellington, one farmer has treated an acre of tomatoes with 100 lbs. of muriate of potash and 300 lbs. of acid phosphate. On an acre directly alongside and treated alike, he added 100 lbs. of sodium nitrate, on the rest of the field no fertilizer was applied. He has kept an accurate record of the work and found that he can profitably use the fertilizer and will do so to a larger extent another year. Other farmers in the same section are experimenting with fertilizers on potatoes, strawberries, tomatoes and celery. One of our experiments this season was with fertilizers for celery on muck soil.

Experimental or demonstration plots were conducted in connection with the Collegiate Institute. In addition, variety tests were made of mangolds, tomatoes, millets and corn, also fertilizer tests with potatoes. We had a breeding block of sweet corn, known as Pearce's Improved Evergreen, a variety which originated in this county and which is sought after by the canning factories. We obtained some seed from Mr. Pearce and made some selections from the block grown this year. The main point considered in selecting was to obtain ears with deeper kernels, thus giving a larger proportion of corn. We expect to carry this work further another year and to get the managers of the different factories interested.

The fruit growers of the county have been very much interested in spraying. The diseases and pests affecting the trees and fruit are so many that they realize it is impossible to produce fruit of superior quality otherwise. There are about two hundred fruit growers in the county who sprayed during the past season. We did not conduct spraying demonstrations on our own account; but kept busy visiting those who were spraying, and endeavoured to get them to do the work as nearly right as possible.

In 1909, tests were made with four brands of lime-sulphur, viz., Vanco, Rex, Niagara and Grasselli brands. No difference in the value of these materials was noticeable. We also tried using an excess of lime in Bordeaux mixture. Although the mixture was more difficult to apply, it seemed to be very effective in destroying the Oyster Shell Scale.

In the spring of 1910 we tested the comparative value of arsenite of lime and arsenate of lead when used as an insecticide along with lime-sulphur as a summer spray. The former was most effective in controlling the Codling Moth, but when applied in greater quantity than recommended resulted in severe burning of the foliage. In spite of the latter, the fruit growers here prefer to use it on account of the cheapness of preparation.

This year the orchards which have been sprayed and cared for have an abundance of first-class fruit. Preparations are being made already for next year's work and much of the material is already ordered.

Mr. Whitford Collier of East Lake has an orchard of twenty acres, consisting of Baldwins, Cranberry Pippin, Spies, Bottle Greening, and Ben Davis. This spring he purchased a complete spraying outfit and four barrels of lime-sulphur mixture. He claims that the spray was worth $400 to him this season.

There is another very good object lesson in another locality, at Albury. Mr. Wm. Peck owns an old orchard of about 7 acres. A year ago this orchard was very seriously affected with Leaf Blister Mite and the fruit was ruined by Codling Moth. This year the orchard was sprayed thoroughly and sold for $1,500, while a year ago, when there were more apples, it brought the owner less than $400. The Leaf Blister Mite and the Oyster Shell Scale are possibly the worst enemies of the fruit grower in this county. The lime-sulphur mixture seems to control these almost entirely. The concentrated material is very expensive, costing approximately $13 per barrel laid down in Picton. Through the introduction of the home-boiled lime-sulphur, the farmers are more apt to take hold of the spraying. It is much cheaper, as it can be prepared at less than one-third the cost of the commercial.

We visited fourteen different sections of the county last spring and gave demonstrations in the preparation of the home-boiled concentrated lime-sulphur. During the past season this spray gave fully as good, and some claim better, results than the commercial article. In one section where a demonstration was given they boiled 15 barrels and have already ordered three times the material for next year. At Wellington, they purchased 3,500 lbs. sulphur, 1,750 lbs. lime, making 35 bbls. of concentrated solution at a cost of less than $1.50 per bbl.

A Short Course in stock and seed judging was held in Ameliasburgh on March 14, 15 and 16, at which it was estimated that 1,200 farmers attended. Discussions were held and demonstrations given regarding light and heavy horses, dairy and beef cattle, swine, and farm crops, viz., wheat, oats, barley, corn, hay, pasture and fodder crops.

The Fruit Institute held in Picton on December 14, 15 and 16 was well attended, there being an attendance of upwards of 400 at one of the sessions. Special emphasis was placed on fruit production and the planting, cultivating and spraying of the orchard. Demonstrations were given to show the best methods of packing apples and the preparation of spray materials, particularly the lime-sulphur wash.

All the fall fairs in the county have been attended, viz., Picton, Roblin's Mills and Demorestville. Judging demonstrations were conducted at Picton and Roblin's Mills Fairs for young men, as well as weed and weed seed naming contests and apple naming contests.

Educational exhibits were shown at Picton and Roblin's Mills in 1909 and also in 1910. The exhibit consisted of weeds and weed seeds, insects and diseases of fruits and crops, the results of the experiments conducted. I distributed literature of the Department of Agriculture, and acted in the capacity of judge at two fairs each season.

Judging demonstrations were held at North Port, Hillier, South Bay, Bethel, Crofton and Milford. Horses and dairy cattle were judged and discussed. The average attendance at each place was 45. In most cases, evening meetings were held.

Two seed meetings were held in June, 1909, at Hillier and Northport, attendance 45 and 50, respectively. In 1910, special seed meetings were held at Cherry Valley, Milford and Mountain View, with an average attendance of 55.

I have attended all the Farmers' Institute meetings, Agricultural Society meetings, Farmers' Club meetings, and cheese meetings held in the county. There are thirteen organized Farmers' Clubs in the county. I attended a large number of the meetings of each Club

and took part in the discussions. One of the Clubs in the county developed into a Fruit Growers' Association. It purchased all the spraying materials and supplies for the members during the past season, and is making preparations for packing and marketing their crop next year. There are but sixteen members in this Association, but I think it will grow rapidly. We spent a good deal of time with the members during the spraying season, assisting them in the preparation and application of spray materials, and testing the mixtures and pumps. Each member of this Association speaks in the highest terms of the results obtained from spraying. In Wellington district, there are few fruit growers who will not be spraying another year.

I attended the annual meetings of the cheese factories at Bloomfield, Wellington, Allisonville, Hillier, Consecon, Ameliasburgh, Rednersville, Quinte, Massassaga and Mountain View factories, and was also present at the meeting of the Cheese Board of Trade.

During the last school year, we conducted two classes in agriculture in the Collegiate Institute. In the Long Course were six pupils, while in the six-weeks or Short Course there were thirty registered. The coming year we are planning to extend the Short Course to ten weeks and we have every reason to believe the attendance will be greater.

We endeavoured to encourage the rural schools to give attention to school gardens. The Mountain View school had a very good garden and the people of that section have taken a deep interest in the work. The teacher, Mr. J. M. Root, came to us for advice, and afterwards carried out the suggestions given. The garden contained plots for each class of corn, oats, barley, goose wheat, millets, roots, vegetables and flowers. It was maintained in first-class shape and created much interest. Indeed, several other teachers have expressed their intention of taking up this work another year.

Dr. Morley Currie, M.P., donated $50 for prizes for the best essay and collection of weeds from each township in the county, the plans and conditions of the contest being made out by us. Five of the seven townships of the county had entries, and the competition succeeded in interesting a large number of young men in a study of farm weeds. A number of teachers also became interested in the contest. Two of the contestants and winners of this competition told me that they had decided to attend the agricultural course at the beginning of the year.

Underdrainage has been practised but little in this county. Interest was created as a result of a drainage survey on a farm near Picton, and discussion at a demonstration held on the same farm in July, 1909. I have knowledge of 12,000 tiles being laid as a result.

This year there were more calls for drainage surveys and plans than we could attend to. Twenty-four applications, averaging 100 acres, have been received, and of these thirteen have been completed. Considerably more drainage would be done, but labour cannot be obtained. We made surveys and plans only where the farmers were prepared to go ahead with the work. A ditching machine will likely be purchased before spring, and from present indications there will be many more calls another year. I cannot cite any outstanding instance where underdrainage has been a benefit, as the work has been so recently undertaken. Last fall we took levels for a main drain across three farms; the drain was completed late last year, and the farmers had this year more than double the crop they ever had on the same land.

I have assisted in making plans for farm barns, and particularly in laying out of stables, planning for ventilation, and the construction of silos.

Waterloo County

FARMERS' CLUBS: We have about twelve Clubs in operation in the county, meeting once or twice a month during the winter, with some continuing during the whole year. These meetings are of an educational nature and are addressed by the members themselves with an occasional outside speaker on the programme. The Club affords opportunities for public speaking, for acquiring the benefit of the experience of other farmers in the community, it acts as a social centre for the district, neighbours become better acquainted, and in many ways proves very beneficial. Different schemes have been initiated in various Clubs. One has been instrumental in getting a rural telephone system among the farmers and in starting a continuation class in the village school. Another has revived the ploughing match and instituted an annual neighbourhood banquet. Others have various co-operative schemes. Each Club is working out plans for the betterment of its members. Of course, I attend as many meetings as possible, and as they are all held in the evening and are in different parts of the county, at times it means considerable travelling and driving at night. In view of this, it is impossible for me to attend all. However, each Club Secretary sends me a full report of each meeting, together with copies of some of the papers read and a synopsis of the discussions. Consequently, I keep in close touch with all the clubs over the county. I have used some of these reports and papers for full-page accounts of the various meetings in our local weekly papers, copies of which were sent to the members of all the Clubs. We are holding a conference of the officers of these Clubs in the near future in order that ideas may be exchanged, and preparation is being made for the organization of more Clubs.

Short Courses: These courses have been of two or three days' duration and were for the purpose of a practical study of live stock and seeds. I have been favoured with the services of the professors of the Ontario Agricultural College for this work. These courses have been held at Ayr, Galt and Elmira. The average attendance at each has been between 300 and 400 farmers. We have used the best stock obtainable and have had as teachers the highest authorities, so that these courses are easily recognized as of immense value in advancing agricultural education at home. And just here is an excellent example of the value of the Farmers' Clubs. In the necessary preparation work for these courses, such as obtaining stock, buildings, advertising, etc., the organized Clubs have been the main feature and, in a large measure, to their efforts the success obtained has been due.

Demonstrations: Practical demonstrations in caring for orchards have been held. Parts of orchards in various sections of the county were sprayed and results noted by the owners. At some of these sprayings, the men of the neighbourhood were invited to be present and explanations were given as to the methods and reasons for the different sprayings. At some of these orchard meetings the subject of farm weeds was also discussed, the actual weeds of the district from the fields being used for illustration purposes.

Experiments with Commercial Fertilizers: We have had about thirty experiments on farms in different parts of the county in order to determine the value of the fertilizers for certain purposes. These experiments consisted of applying the different fertilizers in various combinations and with various crops both on muck soils and on typical fields of the farm. The material has been prepared for the experimenter and directions given, so that we have had very little difficulty in getting good results from the men who have co-operated with us in this work. All of these experiments were visited some time during the season.

Rural Schools: During the last two years, we have had three of the rural schools near Galt unite in a competition in growing farm crops and in making nature collections. This year we have had six of the schools near Ayr doing the same work. The results were exhibited at what we called a Rural School Fall Fair. From an educational standpoint I believe some of the best activities of young boys and girls on the farm have resulted from this work. As far as possible, the pupils' plots at their homes were visited during the summer. In driving about the county I sometimes take the opportunity of visiting the rural schools and of addressing the pupils. I have also helped some of the teachers in connection with their school gardens and nature study.

Farmers' Institutes: Each year I have been on the programme of all the Institute meetings in both the north and the south ridings. During the winter practically one month was spent at these meetings. We have induced many pupils each year to visit the Agricultural College at the time of the annual Institute excursion.

Agricultural Society: This society has given me large latitude in connection with certain features of the fall fair, and particularly in the pupils' department. This department is now exceptionally educative, not only for the boys and girls exhibiting but for the public as well.

In connection with the fall fairs we have had educationl exhibits of our own, such as would be helpful to farmers seeking information. We have also held successful stock judging competitions for boys in connection with the fair. Our experimental plots were in the fair grounds. In addition, I have had the opportunity of delivering addresses at the seed fairs of the agricultural society.

Besides the above, much detailed work of a more general nature has been done, such as the preparation of addresses for meetings, articles for the press, assisting the different Farmers' Clubs in their various activities, aiding the Women's Institutes, Horticultural Societies, Poultry Associations, etc. The office is used as the boardroom for these societies. I have addressed the Teachers' County Convention, acted as judge in the Standing Field Crops Competition, and have endeavoured to be of assistance to all organizations connected with the rural communities. Mention should also be made of the individual assistance given to numerous farmers, both in the office and in my trips through the county.

Expenditure of the Ontario Department of Agriculture for the year 1910

CIVIL GOVERNMENT (Agriculture):	
Salaries	$ 23,187.50
Contingencies	2,625.30
Total	$ 25,812.80
AGRICULTURAL COLLEGE AND MACDONALD INSTITUTE:	
College salaries	$ 70,408.30
College expenses	61,328.05
Institute salaries	18,600.10
Institute expenses	16,588.11
Farm department	17,413.56
Field experiments	12,150.22
Dairy department	11,210.85
Dairy School	7,101.52
Forestry department	1,434.29

Poultry department	5,010.83
Horticultural department	9,532.40
Soil Physics department	3,999.27
Mechanics department	1,041.39
Agricultural department	749.96
Total	$ 236,568.85

VETERINARY COLLEGE:

Salaries	$ 18,424.45
Expenses	13,554.43
Total	$ 31,978.88

AGRICULTURAL AND HORTICULTURAL SOCIETIES:

Salaries	$ 5,190.00
Contingencies	1,931.79
Pure seed fairs	380.70
Spring stock shows	3,174.05
Grants to agricultural societies	83,606.00
Field crop competitions	6,986.61
Expert judges	9,881.92
Grants to horticultural societies	9,996.00
Ontario Vegetable Growers' Association	800.00
Miscellaneous	774.24
Total	$ 122,721.31

LIVE STOCK BRANCH:

Salaries	$ 6,262.50
Contingencies	1,240.29
Winter Fair, Guelph	9,500.00
Winter Fair, Ottawa	7,500.00
Horse shows, grants	2,475.00
Local poultry associations, grants	2,024.93
Miscellaneous	2,767.38
Total	$ 31,770.10

INSTITUTES BRANCH:

Salaries	$ 4,126.67
Contingencies	4,166.39
Grants, services and expenses of lecturers	26,449.19
Total	$ 34,742.25

DAIRY BRANCH: (Under charge of Institutes Superintendent).

Eastern Dairy School	$ 12,053.17
Grants to Dairy Associations	4,500.00
Instruction and inspection	39,065.24
Miscellaneous	2,177.17
Total	$ 57,795.58

FRUIT BRANCH:	
Salaries	$ 3,140.00
Grants to associations	3,850.00
Orchard spraying	4,170.08
Fruit exhibitions	4,500.42
Fruit Experiment Stations	14,348.29
Orchard inspections	3,775.17
Bee Keepers' Association Grant	450.00
Inspection of apiaries	2,554.43
Entomological Society grant	1,000.00
Orchard surveys	2,652.05
Contingencies	1,399.39
Total	$ 41,839.83
FARM FORESTRY:	
Purchase of waste land	$ 2,805.00
Wages	3,877.15
Miscellaneous	3,284.18
Total	$ 9,966.33
DISTRICT REPRESENTATIVES AND TEACHERS OF AGRICULTURE:	
Salaries (paid by Dept. of Education)	$ 16,800.00
Services of Assistants and expenses (paid by Dept. of Agriculture)	20,792.19
Total	$ 37,772.19
STATISTICS BRANCH:	
Services and expenses	$ 3,763.90
MISCELLANEOUS:	
Reports and bulletins	$ 14,943.94
Milk Commission	1,618.20
Corn Growers' Association grant	500.00
Experimental Union, grant	2,750.00
Demonstration Farm, N. Ontario	7,317.44
Other expenditures	2,266.17
Total	$ 29,395.75
COLONIZATION BRANCH:	
Salaries (Toronto)	$ 5,757.67
Contingencies	3,267.32
Work in Great Britain	29,650.14
Pamphlets, advertising, etc.	18,094.91
Grants, bonuses and advances	25,923.25
Miscellaneous	1,528.27
Total	$ 84,221.56
Grand Total, 1910	748,169.33
Revenue	113,457.09
Net Expenditure	$ 634,712.24

Appropriations for 1911

Civil Government	$ 41,850.00
Agricultural College	259,041.00
Veterinary College	32,488.00
Agricultural Societies Branch	125,505.00
Live Stock Branch	44,720.00
Institutes Branch	39,583.00
Dairy Branch	62,750.00
Fruit Branch	50,020.00
Farm Forestry	10,000.00
District Representatives (Salaries additional $22,800)	27,600.00
Statistics Branch	5,500.00
Immigration Branch	100,600.00
Demonstration Branch	8,000.00
Miscellaneous	30,250.00
Total	$ 837,907.00
Expenditure on capital account	70,732.00

A slum district.

Unsanitary Housing

By Chas. A. Hodgetts, M.D., L.R.C.P., London, &c.

Medical Adviser to the Public Health Committee of the Commission of Conservation

THE housing question has been more particularly and prominently brought to the attention of Canadians by Mr. Henry Vivian, M.P., through the kindly auspices of His Excellency Earl Grey, to whom Canadians must feel deeply grateful for this practical expression of his personal interest in all things that appertain to the social and national welfare of our country.

The evils of improper housing and the deleterious effect of their continuance upon the individual, both as affecting his health and his morals, are now generally acknowledged; but that we should be able to say that considerable of what has been written and much that has been said in respect to unsanitary housing conditions in Europe can be applied to Canada, comes perhaps as a surprise to many who have considered that in this fair land of ours, it was impossible for such evils to grow up. It is quite true the evil does exist, and perhaps to a greater extent than we are free to admit; not to such an alarming extent, perhaps, as elsewhere, but none the less it is an evil which, if we but look for, we may find, even beyond the boundaries of our larger centres of population—for the nucleus of many a slum has been planted even in the outskirts of civilization and it will be found that, even there, some of the more serious effects upon the health and morals of the dwellers are already apparent.

Existing Conditions in Canada

The following brief extracts from the writings of three well known public officials indicate the conditions existing in at least three sections of the Dominion.

Regarding the province of Quebec, Dr. Elzear Pelletier, Secretary of the Quebec Board of Health, in an excellent article on "Our Unhealthy Dwellings," says:

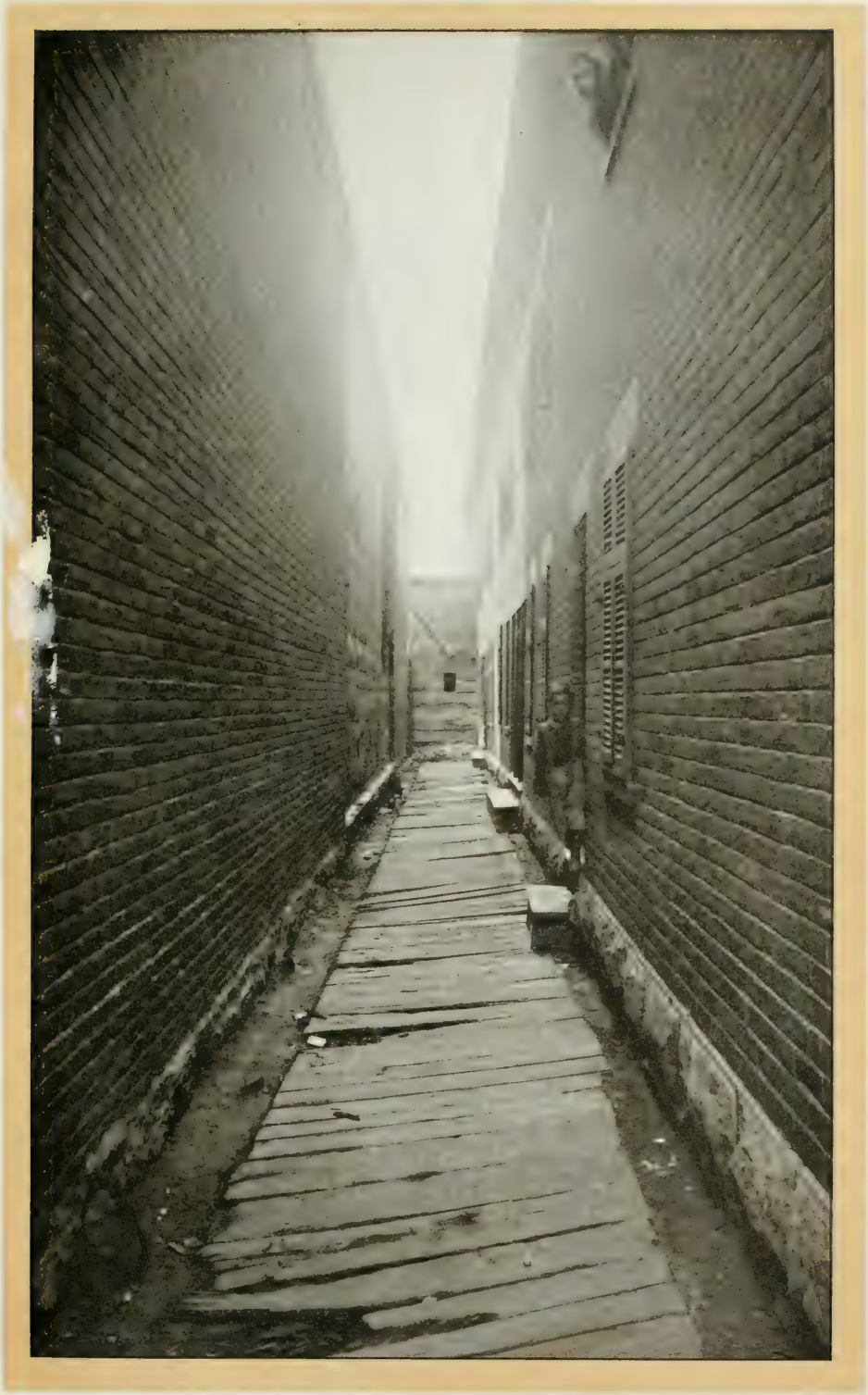
> "As the populations of our cities increase, the dwellings are huddled together, without any care being given to their orientation in order to secure sunshine and light for the apartments, and without reserving enough free space to allow the air to circulate around the dwellings. The height of the buildings constructed is out of proportion to the width of the

streets, which will look, in time, like mere lanes. Wings are built precisely in the places where they will intercept the sun-rays most directly. Some so-called improved dwellings are constructed in which the half of the rooms are lighted from closed yards, which consequently contain only stagnant air. Moreover, some of these yards are only wells, styled light-wells, but where the sun can never penetrate. Rooms are made without any window whatever. And lastly, dwellings, healthy until now, are transformed into absolutely unhealthy dwellings, and tenants are always found for them.....

"The public authorities should boldly undertake the fight against the cupidity of the real estate owners. They should not, indeed, hesitate. 'Let no one,' writes Chessyon, 'speak of the violation of the right of ownership. If ownership has rights, it also has duties, and the respect for the interests of the proprietor cannot go so far as to deliver up to him, without control and counter-weight, the lives of the families he lodges in his property. If indeed, ownership is one of the foundations of society, public health is another of them, and it has also a right to consideration.' "

Referring to slum conditions in Ontario, J. J. Kelso, Superintendent of the Department of Neglected Children, speaks as follows:

"These slums are exceedingly dangerous to the health and morals of a city because they are, to the great majority of the people, unknown and unexplored retreats. If leading citizens had to visit these places frequently, the dilapidation, stench, and general misery of mothers and children would so appeal to them as to bring about a quick reform. They are not concerned because they do not comprehend the horrors of the situation.....If there could be a drastic measure passed requiring every house in which human beings dwell to front on a forty or sixty foot street, or else be pulled down, how long would drunkenness, vice and ignorance exist! Not very long, provided there was good municipal government and active Christian effort for social betterment. The slums should be attacked and abolished because they are the great enemy to the home, which is the foundation stone of the State. Bad housing conditions inevitably tend to drunkenness in parents; to deliquency in children; to disorderly conduct; to wife and family desertion by men who get tired of it all; to immorality in the growing generation owing to the lack of privacy and the consequent loss of modesty; to the spread of typhoid fever, diphtheria, scarlet fever, and the ravages of the great white plague."



A row of houses in a side lane, Montreal.

The report of Dr. A. J. Douglas, Medical Officer of Health of Winnipeg, contains the following references to overcrowding in that city; the first indicates how overcrowding occurs, and the second shows along what lines work is being done—an example to other cities to go and do likewise:

> "Overcrowding notices totalled 1852, an increase over last year, but most of these were not extreme cases, but merely verbal warnings of the inspector, whose special duty this is, that the number of beds must be reduced; for it requires ceaseless vigilance to keep within bounds the temptation of certain classes to eke out a slender living by taking in boarders, regardless of the size of their rooms or families.....
>
> "I think we can honestly say that the improvement noted last year amongst the class referred to has been continued through this year. The total number of buildings remaining closed and placarded, December 31st, 1909, were 145. Many of these have been unoccupied for years and are in fact, beyond repair. They, however, cause both this department and the Building Inspector much annoyance by being broken into and becoming nuisances."

In the Report of the Registrar General of Ontario for the year 1908, reference is made to the housing question as follows:

> "There are also many other lines upon which improvement can be made, such as the housing of the poorer classes, preferably in detached houses or cottages, the preventing of overcrowding, and I would go so far as recommending legislation to prevent, under certain conditions, the erection of the tenement. They are a damnable architectural invention, and their erection should be carefully considered. Space is what we require, so that fresh air and sunlight may be enjoyed by all."

It may very properly be asked, What is unsanitary housing?" It is that condition of housing which, in itself, is unsanitary and unsafe or in any way unfit for home-making or for habitation, no matter how transitory; that which tends to impair the physical health or morals of the tenant; the conditions of which are damaging to the community. Some of these attributes may be applied to the expensive apartment house which is little better than a series of packing boxes, a human storage warehouse. Would you therefore have it inferred the modern apartment is a "slum home?" Not a slum but an unhealthy hive, an architectural monstrosity; but these are just the kind of houses that in their decadence make the worst kind of slum homes.

The term slum is in the present instance applied to the homes of two classes of the community, viz., those of the working class who strive to live honestly, and those of the poor who find it difficult to make a living or who do not intend to. The homes of the poor consist mainly of the abandoned hovels to be found here and there—those houses which have seen better days, the property often of well-to-do citizens or corporations, not the property of the poor occupant who has to pay rent of an exorbitant amount, considering the absence, in most cases, of even necessary conveniences and comforts, and that "necessary repairs" are a negligible quantity. Indeed, all is dilapidation, decay and desolation. The environment reeks with the odours of successive strata of dirt, household refuse, and domestic slops, while the walls are cracked, and the stairways rickety and unsafe, narrow and dark. The houses are often without cellars, are low and damp, being sometimes built flat upon the ground; while darkened rooms, inaccessible to sunlight, add a sombre hue to a condition which can only be summed up as "damnable." Such in brief, is a description of what, in the aggregate, constitutes in the popular mind in Canada the "slum."

The slum house stands in a similar relationship to the community as the physical degenerate does to society: both alike are to be found in all grades of the community, both are found more frequently amongst the poorer classes. No matter where the slum house is found it is a danger and a menace to the community. Like the bacteria of which we hear so much to-day and of which we will know more in the days to come, the disease-producing organism may be of a virulent or non-virulent type and yet be the same. The slum, like the tentacles of the devil fish, receives its prey within its walls, retains and engulfs him "by imperceptible, yet rapid degrees. Its denizens sink into apathy and develop that strange malady of the modern city, the slum disease. This is an infection productive of infections, a contagion which, as it spreads through the slum, creates new slum dwellers as it passes, leaving its victims stricken with inertia, slothfulness, drunkenness, criminality.

". . . . . Let them escape or not, one and all suffer equally in their lack of resistance to disease. Mal-nutrition, bad air, and overcrowding swell the columns which tell of tuberculosis, pneumonia, diphtheria, and every kindred disease. The slum is the great culture medium of civilization, wherein huge cultures of disease are growing, ready when ripe to rise and sweep the city streets."*

Amongst the poorer classes, the slum home finds its pabulum, and develops a virulence which is manifest by the great spread of

* Hollis Godfrey, *The Health of the City.*

Rear of unsanitary dwellings, Montreal.

A remodelled dwelling made into an unsanitary tenement.

disease, death, degeneracy and crime. While it slumbers long in the districts of the better classes, a day, however, arrives when even here these conditions become manifest. The once fashionable house is divided and subdivided and becomes the residence of poorer and still poorer tenants. Decay and dilapidation make inroads on the house and mark its degeneracy; and the social disease rapidly spreads until the slum district is established.

This is the process of evolution by which slums have come and are coming into existence in different portions of Canada. The sections of the city of Toronto which, in the days of the early colony, when Ontario and Quebec were known as Upper and Lower Canada, contained the homes of the better classes, have to-day, in some instances, degenerated into slums. I presume that similar conditions exist elsewhere.

The unsanitary conditions appertaining to the housing of the working classes are not so apparent as they are amongst the absolutely poor; but we must not flatter ourselves that this important portion of the community are properly housed, for in many instances they are not. This is equally true of the single man as it is of the man with a family. The one boards in a house overcrowded, unventilated and falling to decay; the latter, if he lives in a crowded portion of a city, is forced either to rent an inferior house in a slum locality, or to share a house with one or more of his fellows. Should the married man live in the suburbs, it is perhaps in a shack town, the whole family being crowded into one or two rooms intended to serve as a kitchen annex to the house he hopes to build. His great expectations are slow to materialize and frequently he, or some others of his family, die in the making of a home—victims of unsanitary housing. This is an example of the working man being the victim of land speculators whose sugar-coated offers have led him to launch out on a scheme of housing which they knew well it was difficult for him to carry to a successful issue. The man has paid too heavily for his land and finds the cost of building plus the interest and annual payment, a greater burden than he contemplated. It is the lure of the land speculator.

That, in the making of a nation, history repeats itself as regards housing conditions, will be seen from the following interesting extract:

> "There has been proceeding for a number of years a change of usage more than a change of actual property. Whole streets and squares of houses formerly occupied by single families and often good-class families, are now occupied as separate dwellings on separate floors. The private house has become a tenement house. There is a common

passage and a common staircase, both of which are open to the public, and the passage and staircase act as the ventilating shaft for the foul atmosphere derived from the dwelling-rooms opening on the stair. The history of such a house is a dismal record of degeneration. Year by year the state slowly but surely becomes worse. The house was structurally designed for one family and is now occupied by four or more families. The sanitary conveniences were also designed for one family and now provide for four families. The same must be said of the water supply and washhouse accommodation. There can be no doubt that the ill-ventilation and the difficulty of access to the sanitary conveniences, scullery, washhouse, or dust-bin may indirectly act as causes of ill-health and undesirable habits. Hence it comes about that both house and tenants degenerate.

"Another of the general characteristics of house property in Central London is that the yards in the rear of the houses have, in many cases, been built over. The condition of things constantly to be observed is this: Between two streets running parallel, there existed, when the houses were first built, an open space, subdivided into yards. Thus fresh air was obtainable in the rear as well as in the front of the houses. In the yards were constructed various conveniences for sanitary purposes, washing, refuse collection, etc. Thus the house, as a private house, was equipped. But in addition to the invasion of tenants, to which reference has already been made, there has been an industrial invasion. The yards became covered in or otherwise built over for workshop premises. Even when such buildings are small, they effectually prevent thorough ventilation on the ground floor. But so extensive have such buildings become in certain cases, that a large portion of the open space originally existing between the street backs has been filled in. The houses thus become, practically speaking, back-to-back houses. Moreover, the immediate proximity of some kinds of workshops to dwelling-houses readily gives rise to nuisances of various kinds."*

It is quite true that the poor we shall have always with us; but that is no excuse that they should be relegated to live in squalor, dirt, darkness, dampness and disease, which not only deteriorate them physically, but corrupt and degrade them morally. There is no reason why their habitations should act as the recruiting grounds for our asylums for the idiots and the insane, and for our gaols and prisons—those monuments we erect to our Errors of Civilization.

* Report on the Public Health of Finsbury, 1905.

In the foreign quarter, Toronto.

Housing the Immigrant

It is not only, however, in the districts where old and ramshackle houses are to be found that slums exist; but they can also be found by the hundreds in those newer acquisitions to our cities and towns commonly known as "shack towns," those aggregations of wooden-walled, tar-paper covered, tin tack-studded shacks and sheds which are intended for temporary residences for the newly arrived immigrant, but which, in too many instances, become the overcrowded permanent homes of a foreign population,—hot beds of parasitic and communicable diseases and breeders of vice and iniquity. The immigrant must be housed and in desperation he eagerly seizes upon the best he can find at the price he can pay. If he can find nothing, either he or some speculator runs up a shack in the suburbs, it may be of a city or town. Whether he buys the land and builds the shack or rents it, he pays exorbitant prices for the accommodation he secures. Thus have sprung up our Little Italys, our Little Londons, and our Chinatowns, devoid of the simplest of modern sanitary requirements. This type of slum can well be described in the account given of an Italian colony near Sault Ste. Marie, where there had been over thirty cases of typhoid fever:

> "This colony is crowded into a lot of miserable shacks, filthy both outside and inside; no cellars, no drainage, closets on the surface of the ground, vile beyond description; water from shallow wells, which were dirty and unfit for use, and most of them located within a few feet of the closets."*

In Canada, we have been receiving and will continue to receive the people from many of the European countries in increasing numbers. We have in our midst the inhabitants of Asiatic countries, bringing with them their Oriental customs and habits. Each nationality has its peculiar ideas as to how its people should live. They all come with the one object of making a living, if not of making money, although some few reach these shores imbued with the one idea—love of money, and in their eagerness to get money, they often live more like swine than human beings. The shrine as well as the Goddess of Hygeia are unhonoured and unknown. This is no myth, for during some years as Public Health Officer in Ontario, I have seen many instances of how some of these people begin a "slum home" in the central part of a city, bring up a family in it and carry on business under conditions which pen can but imperfectly describe.

One example of this may be pertinent, one which came under my own notice some years ago. A newly married couple arrived in

* Annual Report of the Provincial Board of Health of Ontario, 1906.

one of our cities from a southern European country. The husband for a time peddled plaster casts of antiques. Subsequently, with the development of the fresh fruit trade, he secured a stand on the most prominent business thoroughfare, the site being an alley way to what was formerly a blacksmith's shop. Here, using the walls of the adjoining stores, the landlord constructed a shack, a lean-to, consisting of space for a fruit stand in front and one room in the rear, which served as kitchen, bed room, living room and, incidentally, as store room for fruit. In this slum home, lived for some years this man and woman. Several children were born there, the greater number died there, and were it not that the site was required for new buildings, the family might have been living there now.

The housing of the immigrant population is a problem which concerns every city, town and district in Canada and must be grappled with right now. It is a phase of the housing question which is little understood and to which little or no attention has been paid. One has only to visit some of the larger cities to witness the evil conditions which now exist and then to ask himself where this will end unless proper measures are at once adopted.

Consider for a moment the distribution of the immigrant population for the fiscal year ending March 31, 1910, which numbered 104,996. Where and under what conditions has this large number been housed? How many new houses have been erected to meet the wants of the larger portion who, with little money, no knowledge of our language, customs and laws have had to secure housing accommodation? To those who went out to build our great railway lines I will not refer except to say that their housing conditions might be bettered and yet not be called sanitary, or even equal to the conditions under which many a good farmer houses his cattle. They certainly could not compare with the accommodation afforded cattle, in some of the dairy barns in Ontario. The foreign immigrant, while in many instances like the passenger in the overcrowded street car, is at this disadvantage: he is overcrowded all the time, day and night. Both alike pay for accommodation which they don't get, the one to the street car company, the other to the landlord. If these conditions were of a transitory character it would not be so bad; but they have been growing in our midst and unless action is speedily taken to remedy them, the consequences will be alike disastrous to the nation from the standpoint of public health, economics and sociology. That the question is of general interest may be gathered from a glance at the immigration statistics referred to above.

A tenement occupying the whole of lot, stores on ground floor, clothes line on roof, in foreign quarter, Toronto.

An overcrowded foreign quarter, Toronto, basement dwellings in row. Note "store" with garbage in front, about the centre of row.

It must not be taken for granted that all of the immigration coming from the United States has for its destination the great West. Each province receives its share of the 103,798 although the division in this class is in favour of the newer and agricultural provinces. Four go to the West to one coming to the East, the figures being: Maritime Provinces, Quebec and Ontario, 23,562; Manitoba, Saskatchewan, Alberta and British Columbia, 80,236.

Dividing the immigrant population into three groups, it is found they were distributed as indicated in the following tables:

DISTRIBUTION OF IMMIGRANTS, 1909–10.

	Maritime Provinces, Quebec and Ontario.	Manitoba, Saskatchewan, Alberta, British Columbia and Yukon.
British	33,711	25,179
Foreign	28,024	18,082
United States	23,562	80,236
	85,297	123,497

While not showing the actual number of foreign immigrants that went homesteading in the Western Provinces, the Immigration Report permits of a fairly correct estimate being made. An average of 2.5 persons may be allowed for each homestead. It would appear that nearly all of the number take to the land sooner or later. Certain it is that so far as the housing of the immigrant population is concerned, it is more a rural matter in the West and an urban one in the East.

Foreigners in Canadian Cities

St. John's ward, Toronto, alone contains about 10,000 foreigners, one-half Jews, one-quarter Italians and one-quarter other foreigners, while the total foreign population of Toronto was estimated in 1907 at 26,500.

In Winnipeg it is estimated that one-quarter to one-third of the population is foreigners.

The foreign population of Montreal is given as follows: Jews 25,000 to 30,000; Italians 80,000 to 100,000; Chinese 1,000; Syrians; 800 to 1,000. There is also a considerable number of Greeks and Roumanians.

The following three items refer to Winnipeg's foreign population and indicate overcrowding at this storm centre:*

* *Strangers Within our Gates*, James S. Wadsworth.

"M. Simok and M. Selenk endeavoured to ascertain how many adults they could crowd into a given space. Selenk managed to accommodate forty-three occupants in five rooms where only fourteen could hope to find sufficient atmosphere for healthy respiration. Simok ran his neighbour close, having twenty-four in one room, where only seven should have been. His rooms were too low, and lacked ventilation. In consideration of the immense profits made by such economic means, Magistrate Daly at this morning's police court, charged Selenk $15 and costs, and Simok $10 and costs."

"Stanislau Yablonovish is a teamster. He owns his own team, and his wife goes out cleaning. They own their house and several lots. They live in two rooms, and have five roomers. The furniture consists of three beds, a table, two chairs, a stove and some boxes. The attic is full of pigeons."

"John Klenbyel and wife and six children, and from fifteen to twenty boarders live in four rented rooms. The place is 'beastly' dirty. The boarders bring home kegs of beer nearly every day. Two of the older girls are 'working out.' One of them told our visitor the other day that she cannot stay at home; she is happier away."

Of those who go first to Ontario and Quebec, it is feared that but a small percentage subsequently percolate to the farm lands of the West, for if they find employment at once, they cannot and certainly do not leave the place where they first settle. Their intentions may have been good in this respect, but they have been without the necessary financial backing and soon finding, as they do, that it requires more than 160 acres of land to make a settler, the good intentions leave them and they become what they were before emigrating, urban dwellers. A visit to any of our cities will convince one of this fact. That they are not taking to the rural life in the province of Ontario, at least, is evidenced by the fact that the statement is constantly being made that the farming districts are becoming depopulated, not only because of the migration of the younger men to the Western Provinces, but also for the reason that the towns and cities are attracting them. Do we have much of the settlement of the immigrants on the farms of Ontario?

Referring to the tide of immigration to the United States, Godfrey makes the following statements:

"The incoming human wave which breaks upon our shores sends its scattered spray to many cities. Too little reaches the country. Too much stays in the city slum. It is entirely natural that this should be the case, and that the en-

Row of houses for artizans, located in a "lane" facing outbuildings as shown on left.

Portion of a Toronto courtyard, in which dwell over 40 persons. Note the outside privies.

tering foreigner should seek a dwelling in some locality where his own tongue sounds kindly to his ears. So the Italian, at whatever port he lands, hastens to Little Italy, the Russian seeks Little Russia, and the Hungarian finds lodging in Little Hungary.

"Division of this sort makes housing problems in the United States more complex than those which many European cities show. Model tenements here cannot receive tenants chosen at random in the same fashion as can Berlin or London. Difference of race and type, even difference of locality forbids, for the Italian from the North must have his quarters separated from the Italian of the South, and one tribe from that strange mixture of races called Russia may be the ancient enemy of another. Evidently our attack on this problem must include some selective processes."

How applicable these words are to Canada at the present time! With these facts before us, may not the question be asked: Are we making proper provision for the housing of our immigrant population, to say nothing of the population by natural increase? Overcrowding and slum conditions with their accompanying evils are present with us. By our neglect, indifference and greed of gain we have allowed to become ingrafted in the fair escutcheon of our Canadian civilization a sore which is a disgrace and a shame. True, it is small as compared with similar conditions in other countries; somewhat insignificant, you may deem it, but it is here and unless grappled with now will prove a much more difficult problem to solve even ten years hence.

One is forced to ask: "Is it right that we should invite and encourage settlers to come to this country when we have not even adequate accommodation to offer them of a more decent temporary residence at a fair rental?" We will not speak of permanent homes. True, it is a nation in the making; but the nation must be properly housed. We have passed the nomadic age of our cities. I can show you housing conditions in Canada, which cannot compare, as regards the comforts and conveniences of life, to those enjoyed by the tent dweller in ages past. Even the Hebrews in their four decades of desert wandering surpassed us in the observance of the essential laws of personal and domestic hygiene.

Density of Population

A fair idea of the housing conditions of the people of Canada in 1901, may be gathered from the Census Report of that year. The density of population as affecting the health of the people can hardly be considered; for the population of some seven or eight millions is scattered over a vast area.

The congestion occurs chiefly in the larger centres such as the cities of Montreal, Toronto and Winnipeg. The housing statistics of the two former cities in 1901 were as follow:

	Population	Area in Acres	No. of Houses	Families	Houses per Acre	Pop. per House	Pop. per Acre
Montreal	267,730	5,972	49,157	51,759	8.2	5.4	44.8
Toronto	208,040	10,777	39,104	41,001	3.6	5.3	19.3

In the table no allowance is made for streets, squares or parks, or playgrounds. In Montreal, however, in that year the density of population by wards varied from 8.1 to 111.2 per acre; while in Toronto, on a similar basis, it ranged from 9.0 to 34.9 per acre. The houses per acre ranged from 1.2 to 19.8 in the former city and from 1.85 to 6.05 in the latter. From more recent statistics it would appear that the area of Toronto has been extended to 17,920 acres, the population being estimated at 325,280.* Notwithstanding this material increase in acreage, Toronto, and no doubt Montreal also, compares unfavourably with some of the larger cities of the United States of about the same population. Their areas are as follow:

Buffalo, 26,880 acres; Cincinnati, 27,840 acres; Detroit, 23,040 acres; Indianapolis, 19,840 acres; Minneapolis, 34,080 acres.

For purposes of comparison, the following information in regard to England and Wales may be of interest:

In statistical memoranda presented to the Local Government Board, dated May, 1909, by a committee of its medical officers, the density of population in England and Wales is given as follows: For 1901, 75 urban districts (including London) with a population of 50,000 and over, 25.3 per acre. For 361 districts with a population under 50,000 and over 10,000, it was 5.5. In 686 districts with a population less than 10,000, it was 1.7; and in the rural districts .2 per acre.†

In a paper like this it is impossible to dwell at length upon the subject of density of population or to compare one city with another. Indeed, it is most difficult to do so because municipalities differ in the amount of open spaces and vacant land they possess.

That density of population has an effect, however, upon the health and lives of the people is well established. Mortality is highest in districts towards the centre of a city and lower in the outskirts.

* Financial Post.

† Public Health and Social Conditions, 1909.

A slum home in a lane off chief business thoroughfare, Toronto.

The death rate varies at different ages, being more marked in city children under the age of five years. Mere density alone on a given square space is insufficient to produce all the results which are found. The density of houses is a vital factor to take into account. The house itself, its site, its relationship to other houses, and the character of its inmates must all be considered. Density upon a unit area cannot be ignored; but it is the cubical contents with which we must wrestle to ascertain the effect of overcrowding on death and sickness rates. Dr. Newman gives an interesting table of death rates in houses or tenements of small sizes. In one-room tenements, the death rate from all causes in 1904 was found to be 40.6 per 1,000; in two-room tenements, 21.9; in three-room tenements, 14.7; while in tenements of four rooms and upwards it was 7.5; for the whole municipality it was 21.1.* Perhaps the effect of these unsanitary housing conditions are better shown in the table of Infant Mortality for the same municipality (Finsbury). This table shows a higher fatality among infants living in one-roomed houses than those living in two, three or four-roomed houses.

INFANT MORTALITY RATES FROM ALL AND CERTAIN CAUSES IN HOUSES OR TENEMENTS OF SEVERAL SIZES, METROPOLITAN BOROUGH OF FINSBURY, 1905.

Size of Tenement.	Census Population, 1901.	No. of births.	No. of deaths, all causes.	Infant mortality per 1,000 births.	Diarrhoea, Measles, Whooping Cough, Scarlet Fever, Diphtheria.		Prematurity Immaturity.	
					No. of deaths	Infant mor. per 1,000 births	No. of infant deaths	Infant mor. per 1,000 births.
1 room tenement..	14,516	532	117	219	28	53	16	30
2 " " ..	31,482	1,216	192	157	51	42	32	26
3 " " ..	21,280	468	66	141	16	34	21	44
4 " " .. and upwards of 4 rooms.....	33,185	464	46	99	9	19	9	19
Institutions and deaths and births traced.	1,000	206	8	39	.....	.....	.....	.....
The Borough.....	101,463	2,886	429	148	104	37	78	27

* *Infant Mortality*, G. Newman.

"In cities the average dwelling-space of the inhabitants has a closer relationship to their health than any other condition of health which is capable of statistical expression. Hence I have dwelt at some length upon density of population. If we could obtain a classification of a population according to the amount of measured cubic dwelling-space occupied, and the causes of mortality, possibly we might be able to draw more definite and exact conclusions from the number of persons per 1,000 cubic feet of dwelling-room space than from the number of persons per room, per dwelling, or per house. On the other hand, it has to be considered that it must be healthier to live in two small rooms than in one large room of the same cubic capacity. The former can be used alternately, the latter must be used continuously. The smaller the dwelling the more numerous the uses to which the room or rooms must be put, the most important use from a health point of view being that of sleeping. In a one-room dwelling, even when the breadwinner works away, the parents and children live by day in the same room previously occupied by night for sleeping; the air becomes loaded with the dust of bed-making, and is continuously fouled by respiration, cooking, washing, etc. In winter and between seasons, when the window or door is not wide open, the day usage unfits it for sleeping, and the night usage unfits it for living. The children are the greatest sufferers in physical condition, and as they grow up, possessing never more than feeble health, they become still more degenerate by corruption of moral fibre. In short, in one room sleeping, food-storage, cooking, warming, excretion, ablution, clothes-washing, drying, refuse-storage, bathing, living, including reading, writing, working, and recreation, etc., must be carried on, and the continuous and various usages of the room, and the differences of age and sex of the occupants, must lead one to regard the number of rooms in a dwelling of as much importance as the cubic space per head, at any rate when applied to one and two-room dwellings."*

It is not the purpose of this paper to deal at length with infantile mortality as affected by unsanitary housing, although much could be said thereon. The story is the same wherever you go. In the poor and crowded districts infantile deaths represent on the average, over one-quarter of the total death rate:

"The phthisis death-rate shows a close relationship to density of persons in cubic space, and phthisis appears to

* *Public Health and Housing*, John F. J. Sykes, M.D.

A group of young Canadians with their homes, on narrow alley-way, Montreal.

stand almost in the same relationship to respiratory-pollution as typhoid fever does to filth-pollution. The respiratory diseases apart from phthisis are also influenced by impurities of the air, and afford some measure of their effects, just as diarrhoeal diseases apart from typhoid fever, are regarded as bearing a relationship to impurities of the soil."

What are the housing conditions as regards rooms in Canada? The Census of 1901 shows there were 46,154 one-room houses; 74,715 two-room houses; 97,674 three-room houses. The one-room houses or homes were distributed as follows:

British Columbia, 9,915; Manitoba; 7,524; New Brunswick, 1,479; Nova Scotia, 1,113; Ontario, 8,484; Prince Edward Island, 204; Quebec, 8,556; Territories, 8,879.

It is simply a matter of conjecture what the present housing conditions are; but speaking from observation which is limited to the eastern portion of Canada, I fear there has been no betterment, rather a retrogression.

That marked improvement, as shown by the lowering of the death rate, follows the improvement in the housing conditions of a city, is shown by the vital statistics of Offenbach am Main, which city has done much for the housing of its citizens. In the ten years from 1870 to 1880, the city death rate was 23.6 per thousand. From 1880 to 1890, it was 20.8. From 1890 to 1900, it was 18.5. In 1908, it was 14.1. Every year of the last decade has shown increased activity and every year has seen the death rate a little lower.* In this German city, modern methods of housing and of general improvement in standards of living are saving from nine to ten more lives out of every thousand to-day than were saved thirty years ago.

In Birmingham, England, for instance, 351 infants die out of every one thousand born in the crowded ward of St. Mary's, as against 65 out of every thousand of Bournville, less than four miles distant. These are but two instances out of many others that could be quoted.

Administrative Inefficiency

After attention has been directed to some of the unsanitary housing conditions now existing in Canada and their causes, it may properly be asked what the health authorities are doing that such evils should exist? It may be argued that, even under existing laws and by-laws, local medical officers of health might have minimized the unsanitary conditions now existing. Yet this officer is not always to blame, for, as a rule, he has to take his cue from the local board and too often is

**The Health of the City*, Hollis Godfrey.

it found that the members of a board are more ward politicians than sanitarians, and the health officer, being a general practitioner having to earn his living in the community for which he acts, often without pay, the net result is that no notice is taken of these matters. Thus it is that the evil starts, and under this sanitary inertia it grows and luxuriates, greatly to the joy of the landlord, be he an individual or a company. It is profitable fun for him but slow death to the unfortunate tenants.

That the evil is marked in the city where there is the well-paid health officer, is still further evidence of indifference and inertia on the part of these guardians of the people's lives. The powers of both the health officer and each member of a local board of health are very considerable in nearly every province in Canada; yet where is the evidence of their activity?

As a rule, our health laws are modelled after those of England and Scotland and they confer considerable powers upon these health officials. Except in one or two provinces the Provincial Board of Health only serves in an advisory capacity, and too often the advice, when given, is not followed.

The failures of public health work in Canada have been due to the governments not taking more direct control in administration. In Ontario, for instance, the Government assumes the responsibility for the enforcement of factory laws and maintains a staff of inspectors which is yearly increasing in number. The working man and woman are better housed for eight hours a day in the factory than they are for the other sixteen hours in the case of the man, or, than his wife and family are for the twenty-four hours. If the state has a duty with regard to the enforcement of the factory laws, how much greater is that responsibility in the matter of the housing of the working man and his family and all the rest of us who do not come in under this particular class, but who work as hard and who are equally as valuable to the State? But this is not the only anomaly. The education department requires the proper housing of the child in school, but what of its environment the remainder of the day? The school teacher wears out brain and brawn in the attempt to educate the children of slumdom, but the good done in four or five hours of school is undone in the slum. Properly house the child, give him the sunlight and air of a clean house, and how much greater will be the progress in his mental education and his physical and moral make-up!

The above are two examples where the State acts. In the former instance it enforces the measures by its own officers; in the latter it withholds monetary aid unless its regulations are complied

with. And why does the State act primarily for the health of the two classes concerned? We have seen how the enforcement of health laws works out when left to the local authorities.

From the standpoint of hygiene it would seem that the cart has gone before the horse in the eight-hour day movement, for the average mechanic working in the modern, up-to-date factory spends his time in a better environment than he does the remaining hours of each twenty-four. Physically, he is better off at the factory than at home. The question of sanitary housing at moderate rents is a question well worthy of his earnest and undivided attention. The provinces can, if they only will, accomplish as much good for the sanitation of the home as they have done for the factory, with much better results, not only to the men, but also to the unfortunate women and children who are compelled by circumstances to spend their days therein.

Health Laws Inadequate

It is somewhat farcical that a state should decline to accept any responsibility, financial or otherwise, to provide the means whereby crime and disease may be minimized, if not prevented, by bettering the housing conditions. Yet that same state will plan and devise the most approved and up-to-date sanitary home for a man after he has become a criminal. It damns him first and then attempts his reclamation after. How much better, wiser and politic it would be to assist in the prevention of his fall; for certainly the criminal of to-day is better housed and fed after incarceration than he is in his own slum home, or, for the matter of that, than is the busy, honest artizan or agriculturalist who is carving out in Canada, a home for himself and family.

To bring about a change the preventive measures to be adopted must clearly be of a different character than are now found in our statute books or among the by-laws of our cities and towns, which, so far as securing any practical results is concerned, have, up to the present, proved a negligible quantity.

Epitome of Canadian Health Laws

The laws at present in force in Canada are either provincial laws or regulations, or municipal by-laws. They are, in the main, either (a) health measures of the Public Health Act or regulations thereunder; or (b) provisions of the Municipal Code. The former deal mainly with the question under the head of nuisances, and there is but scanty power given to public health officers to prevent nuisances of this or any other kind. Taken as a whole, the present laws do not deal efficiently with the problem nor, except

in the cases here noted, do they provide any constructive schemes such as are in force in England and Germany for the exclusion of city and town limits.

The Medical Officer of Health is authorized to inspect lands and buildings with the object of preventing the accumulation of filth, dirt, and rubbish, and has power to adopt the necessary measures for the removal of the same.

Upon complaint of the existence of a nuisance, either to the Medical Officer of Health or to the local Board of Health, it is generally the law that an investigation shall be made by either of the above or by the mayor or reeve; and if a nuisance is found to exist, its removal or abatement is ordered. If default occurs, then the nuisance may be removed by the local authorities, in which case the costs become a charge upon the persons whose act caused the nuisance.

In some cases, the provincial act empowers the Health Officers or any two of them to enter into or upon any premises in the day time as often as they think necessary. In such cases, the act provides that the members of a local Board of Health are health officers.

It is quite clear the public health acts, in so far as they refer to nuisances, take cognizance of the conditions which tend to create slums, for this clause, or a similar one, frequently occurs: "That where the nuisance arises from want of defective construction of any structural conveniences," etc.

In addition to the foregoing health provisions, common to most of the provinces, the following clauses call for special notice as being particularly applicable to slum conditions:

Alberta

Sec. 43.—If the nuisance or unhealthy condition arises from some defect in the conformation or construction of the land or building or if the same is unoccupied, the notice prescribed by section 42 shall be given to the proprietor.

British Columbia

Sec. 36.—No person shall let, or occupy, or suffer to be occupied, as a dwelling or lodging, any room which

(a) Does not contain at all times at least three hundred and eighty-four cubic feet of air space for each person occupying the same; or

(b) Has not a window made to open in the manner approved by the Local Board; or

(c) Has not appurtenant to it the use of water-closet or earth-closet constructed in accordance with these regulations.

And every room in which a person passes the night, or is found between midnight and five o'clock in the forenoon, shall be deemed to be occupied as a dwelling or lodging within the meaning of this rule.

Houses in Toronto lanes.

(12) If the Local Board is satisfied upon the examination by itself or officer, that a cellar, room, tenement, or building within its jurisdiction, occupied as a dwelling-place, has become, by reason of the number of occupants, want of cleanliness, the existence therein of a contagious or infectious disease or other cause, unfit for such purpose, or that it has become a nuisance or in any way dangerous to the health of the occupants, or of the public, it may issue a notice in writing to such occupants, or any of them, requiring the said premises to be put in proper sanitary condition; or, if it sees fit, may require the occupants to quit the premises within such time as the Board may deem reasonable. If the persons so notified, or any of them, neglect or refuse to comply with the terms of the notice, every person so offending shall be liable to the penalties imposed for infraction of these regulations, and the Board may cause the premises to be properly cleansed at the expense of the owners or occupants, or may remove the occupants forcibly and close up the premises, and the same shall not again be occupied as a dwelling-place until put into proper sanitary condition; or the Board, if it sees fit may, subject to the provisions of section 97 of the "Health Act, 1893," cause such premises to be destroyed, with the consent of two Justices of the Peace.

Manitoba

Sec. 54.—Where, under the provisions of this Act, or of any municipal by-law, any officer removes any dirt, filth, refuse, debris or other thing likely to endanger the public health or become or cause a nuisance, or which is or is causing a nuisance, such dirt, fifth, refuse or other thing shall be subject to the disposition and order of the officer or officers removing the same, and the owner thereof shall have no claim in respect thereof.

In a publication entitled "General Information Regarding Public Health," the Provincial Board of Health, in dealing with dwelling houses, says:

> "Dwelling houses should never be built upon a wet site. Dryness can be obtained by thorough draining. A wet site is an important factor in the production of many diseases, such as consumption and rheumatism. A dwelling house should never be built upon a lot which was low, but has been filled up with manure and other refuse. Such made up ground simply requires merely the introduction of the germs of infectious diseases to become a hot bed for their propagation. Young children in such houses suffer from cholera infantum during the summer months "

New Brunswick

Sec. 16.—The Provincial Board may also by such regulations authorize and require local Boards of Health, in all cases in which diseases of a malignant and fatal character are discovered to exist within any dwelling or outhouse temporarily occupied as a dwelling situated in an unhealthy or crowded locality, or being in a neglected or filthy state, at the proper cost and charge of such local Boards of Health, to compel such inhabitants of house or outhouse temporarily occupied as a dwelling, to remove therefrom, and to place them in sheds or tents or other good shelter, in some more healthy situation and until measures can be taken by and under the direction of the Local Boards of Health for the immediate cleansing, ventilation, purification and disinfection of said dwelling house or outhouse.

Nova Scotia

Sec. 25.—When it appears to the local board that any tenement used as a dwelling house is so unfit for that purpose that the public health is endangered thereby, the local board may order in writing that it shall be vacated within a reasonable time, to be therein prescribed, and such order shall be served upon the inmates or left at such dwelling house, and in case of disobedience thereof or of a re-occupation of the dwelling house without a permit, the local board may direct a warrant to the sheriff or a constable or sanitary inspector to enforce compliance with the terms of such order.

Sec. 26.—When it appears to the local board that any house, building, cellar, lot or vacant ground is in a state likely to endanger the public health, the local board shall cause a notice to be given to the owner or the occupant, if any, requiring such owner or occupant to remove such cause of complaint as in such notice prescribed, and in case of neglect the local board shall cause the same to be removed.

(2). If there is no occupant and the owner or owners do not reside within the jurisdiction of the local board such notice may be given by advertisement in one or more newspapers published within such jurisdiction, if any are there published, or if not, by posting the same publicly.

Ontario

72a.—No person shall keep or store any rags, bones or other refuse in any building used as a dwelling, or upon any premises within the municipality, unless the same are kept or stored in a suitable building, approved of by the Medical Health Officer.

76a.—The Medical Health Officer or any Sanitary Inspector, acting under instructions of the Medical Health Officer of the municipality, may at any time of the day or night, as often as he thinks

necessary, enter into a lodging-house, tenement where rooms are rented, or a laundry where the owner or employees reside upon the premises, or other buildings where such officer has reason to suspect that the same are overcrowded or occupied by more persons than is reasonably safe for the health of such occupants. If upon such examination it is found that the premises are occupied by more persons than is reasonable for the health of such occupants, and that the sleeping rooms upon such premises are such that less than 400 cubic feet of air can be provided for each adult occupant of such room or rooms, the same shall be deemed to be overcrowded, and the Health Officer may take such steps as are necessary to remedy the evil. If the rooms, or premises occupied by them are in a filthy or unclean state, or if any matter or thing is there which in the opinion of the Medical Health Officer may endanger the public health or the health of the occupants of such room or rooms, the Medical Health Officer may order the owner or occupant of the premises to remove the inmates therefrom, or to remove that which causes the premises to be filthy or unclean, and thus place the room or rooms in a condition fit for proper human habitation. In case the owner or occupant of any such lodging-house, tenement or laundry neglects or refuses to obey the orders given by the Medical Health Officer within twenty-four hours after such notice, he shall be liable to the penalties of this Act; and such Medical Health Officer or Sanitary Inspector may also call to his assistance all constables and peace officers and such other persons as he may think fit, and may enter into such lodging-house, tenement or laundry and cleanse the same, and remove the inmates therefrom, and also any matter or thing which causes the premises to be filthy or unclean, and destroy whatever it is necessary to remove or destroy for the preservation of the public health.

Quebec

Sec. 40.—When a house or other habitation is ascertained to be unhealthy, the municipal sanitary authority may cause the persons inhabiting it to leave it and forbid their return until the same has been rendered healthy in the manner prescribed by law.

Art. 507.—Under the Municipal Code, the Municipal Council has power to authorize the officers of the council to visit and examine all property, whether movable or immovable, as well as the interior or exterior of every house, building or other edifice, to ascertain whether or not the by-laws of the council are carried out; to oblige owners or occupants of such properties, buildings and edifices to receive the officers of the council, and to answer truly all questions which are put to them relative to the carrying out of such municipal by-laws.

Art. 543.—To open, enclose, embellish, improve and maintain, at the costs and charges of the corporation, squares, parks, or public places, of a nature to conduce to the health and well-being of the inhabitants of the municipality.

Saskatchewan

The Public Health Act of Saskatchewan very wisely provides that when regulations of the Bureau of Public Health are in force they override and supersede any municipal by-laws; hence the regulations regarding the sanitary provisions to be observed in the control and arrangement of tenement houses, under date of January 29, 1910, are in force in that province. They are in advance of the regulations of some of the other provinces in that they provide that, where a tenement is erected, it shall occupy not more than eighty per cent. of the total area of the lot. But if such building is bounded on three sides by streets or lanes, ninety per cent. may be built on. This is certainly a move in the right direction, but does not go far enough. The minimum height of room used as sleeping apartments is placed at eight feet with provision for a minimum air space of 500 cubic feet for each occupant. Windows must open to the external air and their area shall not be less than twelve square feet.

Another excellent clause in the Regulations under the Public Health Act is as follows:

> "Any building or part of any building used as a dwelling place which, by reason of its condition, either from lack of sufficient accommodation, want of repair, filthy keeping, damp site, faulty drains, or want of sanitary plumbing therein, has, in the judgment of the medical health officer or commissioner, become unfit for human habitation, shall be so declared and placarded as 'unsanitary and unfit for habitation.'
>
> "Such placard shall not be removed without the consent of the medical health officer or the commissioner, and not until such dwelling place has been so altered, cleaned or repaired as shall make it fit for habitation, and to the satisfaction of the above mentioned officials.
>
> "Any cellar, basement or part thereof, or any house or building used for human habitation which is found to be damp or moist by reason of soakage through wall, defective water pipes, sewer or drain pipes, cisterns, wells, gutters, rain spouts, or from any cause whatever shall be deemed a nuisance."

In this connection, Dr. M. M. Seymour, Commissioner of Public Health states: "Placarding of the premises has been done, with

Slum homes in rural district of Ontario.

the result that the changes necessary to render the building sanitary have been duly carried out."

British Columbia Town Planning Provisions

With regard to town planning, the province of British Columbia has in the Municipal Code a provision which has not as yet been adopted in any other province so far as can be ascertained. It is as follows:

> 249. All future surveys into building lots of property within a city, or of property which is contiguous to the boundaries of a city, by owners and others, shall be subject to the approval of the City Engineer and the Mayor when the city has a City Engineer, or the approval of the Mayor when the city has not a City Engineer; and no plan of such survey shall be registered unless it bears a certificate of such approval, but such approval shall not be unreasonably withheld.
>
> 250. The City Engineer, where the city has such an official, or the Mayor, where the city has not a City Engineer, may sanction the subdivision of any property already subdivided into building lots, and every plan of subdivision of such lots shall be certified by the City Engineer, or by the Mayor when the city has not a City Engineer, as having been approved before registration thereof.

The Municipal Act of Ontario provides that councils of cities and towns and villages may pass by-laws regarding dwellings on narrow streets, as follows:

> 1. For regulating the erection or occupation of dwellings on narrow streets, lanes or alleys, or in crowded or unsanitary districts, and for preventing in the case of cities of upwards of 100,000 the erection of dwellings, or the alteration of other buildings for such purpose if the same front on a street less than 40 feet in width, unless such street has been duly laid out and accepted by the municipality as a public highway.

An indication of the activity of the health authorities of Winnipeg is contained in the following extract from the report of Dr. A. J. Douglas, Medical Officer of Health,* who, in referring to the new laws, states:

> "The Legislature has granted an amendment to the City Charter, conferring upon the City powers to enact by-laws, defining, regulating, governing and controlling all matters connected with the air space, the ventilation, the fire proof character, the sanitation, the size of the rooms, the position of public corridors, the position, number, character of all

*Annual Report on the Public Health of the City of Winnipeg, 1909.

urinals, lavatories or water closets of ordinary apartment or tenement houses; the portion of any lot to be occupied by such apartment or tenement house, and to do all things and prescribe all rules and regulations necessary from time to time respecting the health and welfare of persons occupying any apartment or tenement house.

"By-law No. 5850, *re* tenement houses.—The by-law, although not quite so comprehensive in its provisions as we would have wished, will undoubtedly be of great service in governing the erection of new tenements (to which it mostly refers) and should result in much better sanitary conditions in such buildings.

"The clause relating to the occupation of basements in tenements as dwelling places, should be of service to this Department, as also those parts of the by-law dealing with the convenience or alteration of existing buildings into tenements.

"The clause prohibiting the erection of wooden tenements exceeding two storeys in height is also worthy of note."

In concluding this imperfect and incomplete paper, which is but a preliminary to a more elaborate and detailed one containing a statement of the actual conditions prevailing throughout Canada, attention may be drawn to the fact that, with but few exceptions, health authorities have done little or nothing to prevent the evils at present existing. They have not as a rule exercised the powers they now have, but where they have, it is encouraging to note that good has been accomplished.

In connection with this subject of housing, Dr. Fremantle, Medical Officer of Health of the County of Hertford, recently spoke as follows:

"No sanitary authority can justify its existence, if it is an urban authority at any rate, unless it has definite by-laws in order to prevent the growing up of those defects which are so costly, both to the individual and to the authority, in later years. It is known that on the sanitation of private dwellings, especially of the poorer classes, who are less able to look after the repairs of their homes themselves, depends the health of the individual, and, therefore, the health of the nation. It is recognized as a principle in our national life that the housing of the working classes is one of the most important features to which we have to pay attention in domestic legislation, and, as that has been acknowledged, at the present moment we are only extending the principle a step forward

as the result of the experience of the past fifty years, which has shown us the great expense both in lives and in sickness, and in money, of the growing up of slums in our great cities. Thinking, therefore, of the origin of those slums, we come to the conclusion that by laying down certain principles, as regards not only the internal economy and the building of houses, but as regards the inter-relation of the different houses to one another, we can prevent, to a large extent, the growing up of those slums in future."

Town Planning

Going a step or two further, I would say no government can justify its existence unless it carefully considers this important question and places upon the statute book a law with ample and adequate regulations for dealing with unsanitary houses of all classes of the community and for conferring power on city, town and village municipalities whereby they may not only control, but in a measure direct, town and suburb planning. For, in this period of our growth, the village of to-day becomes the city of to-morrow and the suburb of the town is a portion of the city before we are aware of it. The sins of omission of the rural municipal authorities, as well as the sins of commission of the far-seeing real estate speculator, become an asset of a great city. If the urban authorities have been compelled—advice is worthless—to build and plan on proper lines, then the asset is valuable. It is not a case of building and planning extravagantly, but wisely and well.

Appended is a brief statement of what is being done in the interests of sanitary housing and town planning in foreign countries and in Great Britain, where, by reason of the local conditions, the evils of the past have been brought prominently to the notice of the public and the authorities.

Germany

The outline plan of campaign in Germany may be given thus:

(a) Town planning.
(b) The construction of model tenements.
(c) The encouragement of private builders and of co-operative building societies.
(d) The demolition of slums, either by the destruction of old tenements and their replacement by new model ones, or by business offices and parks.
(e) The repair of existing dwellings so as to make them sanitary.

At the same time, the German cities are trying to sift out their dwellings from the chaotic mass of shops, factories, hovels, mansions and barracks, and send them to the suburbs, thus leaving the industrial buildings grouped in the centre. This is sometimes known as the "Zone System." The farther a zone is distant from the centre of a town, the smaller the number of houses to each acre of land and the smaller the number of storeys permitted each house. The zone does not follow any particular lines—it may simply be a particular area.

Certain municipal authorities may note with advantage that Cologne limits the height of buildings in the centre of the city to five storeys with a mansard; while, in the outer portions of the municipality, no buildings can be over three storeys in height or occupy more than forty per cent. of its lot. In Saxony in 1900, such a scheme as that outlined in Cologne was made compulsory for all towns. How much better our Canadian cities would be fifty years hence if they adopted and enforced such wise provisions now!

The German municipalities have endeavoured to secure the placing of houses so as to obtain the maximum amount of sunshine, and so as to make sure that space be left for parks, playgrounds and garden plots. These regulations generally tend to do away with speculation, they control the builder building for investment, while giving the greatest possible freedom to the individual who desires to build for himself, thus encouraging individuality and resourcefulness.

The community is safeguarded when buildings are to be erected *en masse;* dividends on municipal loaned money are limited; lands are leased for periods of years with the proviso that the buildings erected thereon shall become town property at the expiration of the lease, and the right is reserved to purchase the property or cancel the lease in case of necessity.

Belgium

Before passing from this portion of the subject, reference must be made to the method adopted in Belgium where, by the development of a complete system of inexpensive workmen's trains, it has been demonstrated that by means of cheap and rapid transit a countryside may be built up and the town worker be made a suburban dweller. In that country, a workingman's round-trip weekly ticket (twelve rides) for a six-mile ride can be purchased for less than twenty-five cents per week; while for twelve miles, the cost is thirty cents. Fifty cents per week will carry him out thirty miles from the city. As showing the effect of these cheap transportation rates, it may be stated that the annual sales of tickets increased from 1,200,000 to 4,400,000 in a single decade.

Professor Emile Vanderwelder, in referring to the work, wrote as follows:

> "Enter Hesbaye or Flanders from whatever side one may, the country is everywhere thickly strewn with white red-roofed houses, some of them standing alone, others lying close together in populous villages. If, however, one spends a day in one of the villages—I mean one of those in which there is no local industry—one hardly sees a grown-up workman in the place, and almost believes that the population consists almost entirely of old people and children. But in the evening quite a different picture is seen. We find ourselves for example, some twelve or thirteen miles from Brussels at a small railway station in Brabant, say Bixensast, Genval, or La Hulpe. A train of inordinate length, consisting almost entirely of third-class carriages, runs in. From the rapidly opened doors stream crowds of workmen in dusty, dirty clothes, who cover all the platform as they rush to the doors, apparently in feverish eagerness to be first to reach home where supper awaits them. And every quarter of an hour from the beginning of dusk till well into the night, trains follow trains, discharge part of their human freight, and at all the villages along the line set down troops of workmen—masons, plasterers, paviors, carpenters with their tool-bags on their backs."

When Canadian railways of all kinds shall have provided cheap and rapid transit with seats for every passenger, as has been accomplished in Belgium, we shall have gone a long way towards solving the slum problem and may look for rapid development of the plan of suburban homes for the workingman instead of the present unsanitary conditions.

United States

In the United States the work of city improvement has begun in Washington, Denver, Cincinnati, Cleveland, and the recent ordinance of the Municipal Assembly of the City of St. Louis may be of interest to Canadian municipal authorities. The Ordinance reads as follows:

"AN ORDINANCE CREATING A CITY PLAN COMMISSION AND APPROPRIATING TWENTY-FIVE THOUSAND DOLLARS FOR THE EXPENSES THEREOF

> "Be it ordained by the Municipal Assembly of the City of St. Louis, as follows:
>
> "SECTION 1.—There is hereby created a Commission to be known as the City Plan Commission, which shall consist of

twenty-one citizens, including the President of the City Council ex-officio, the Speaker of the House of Delegates ex-officio, the President of the Board of Public Improvement ex-officio, and the Street Commissioner ex-officio, and the Park Commissioner ex-officio, who shall be appointed by the Mayor and who shall serve without compensation.

"SECTION 2.—The duties of the City Plan Commission shall be:

1. To make an investigation into existing physical conditions in St. Louis.
2. To determine and report upon what should be done to improve these conditions.
3. To prepare a comprehensive city plan for the future improvement and growth of the city, including recommendations for:
   (a) Improvement of river front.
   (b) Extension of streets and opening of new sub-divisions.
   (c) Improvement of entrance to city from the Union Station.
   (d) A rapid transit system.
   (e) Extension of car lines into outlying districts.
   (f) A playground, park and boulevard system.
   (g) Location of public buildings and such other public works as, in the opinion of the Commission, will tend to make St. Louis a more convenient and attractive city.
4. To suggest the State and municipal legislation necessary to facilitate the carrying out of the recommended city plan.

"SECTION 3.—The Commission shall make all rules for its guidance and procedure. The Commission is hereby authorized to incur such expenses within the limits of the appropriations made therefor and to employ such engineering, architectural, and legal advice and such clerical and other assistance as in its judgment may be necessary to carry out the provisions of this Ordinance.

"SECTION 4.—The Commission shall submit a full and complete report to the Municipal Assembly on or before January 1st, 1912, and may make such other reports prior thereto as the Municipal Assembly may require or as the Commission may deem advisable.

A slum quarter of Quebec, shortly to be demolished.

"SECTION 5.—There is hereby appropriated and set apart out of the municipal revenue the sum of twenty-five thousand dollars to be known as the "City Plan Fund" to defray the expenses of the Commission incurred in fulfilling the objects and purposes of this Ordinance."

Great Britain

The movement in Great Britain has proceeded upon lines somewhat similar to those of Germany with this exception: that while German methods lead to centralization of industries and population, decentralization has been the bed-rock principle underlying what is known as the Garden City Movement.

The important pioneer legislation having to do with the movement in Great Britain is the Housing of the Working Classes Act, 1890, with amendments. Part I applies only to urban districts and for its effectiveness seems to depend largely upon official representation by the local authority for the wholesale clearance of slums and the erection of model municipal dwellings either on the cleared site or on suburban land. Part II makes it compulsory upon the owner to set in order unfit habitations and provides for the demolition of houses where the owner refuses to act; while Part III gives to local authorities the power to buy land, erect houses and lay out open spaces for parks, playgrounds and gardens. Part V applies to Scotland and Part VI to Ireland only.

The latest legislation in respect to housing is that passed by the British House of Commons in December, 1909. It is markedly in advance of any previous enactment of a similar character and therefore the following synopsis is appended:

THE HOUSING AND TOWN PLANNING ACT, 1909.

The Act is divided into four parts, which may for convenience be considered under two chief headings, viz.: Part I, Amendments of the Housing Act 1890-1903; Part II, Town Planning. Part I is dealt with under Section I of the Act, while Part II is dealt with under the remaining three sections.

Part I of the Act is to be considered as one with the Housing of the Working Classes Act, 1890-1903. It gives freedom to local authorities, and more particularly, rural district authorities, to exercise the powers granted by the Housing Act, which heretofore have been granted only to urban authorities. It removes obstacles in the matter of procedure; restricts the period for which loans may be left outstanding; and affords increased facilities for the acquisition of land. At the same time the Local Government Board is given increased authority and a new and separate branch of the depart-

ment of the Government has been established for the better administration of both Acts. The provisions in regard to the closing and demolition orders, also those in respect to underground rooms used as sleeping places, and the erection of back to back houses, form important features of the Act.

The original Housing Act requires that schemes under Parts I and II be confirmed by Parliament; but this procedure has now been removed and confirmation of plans will be made by the Local Government Board.

Part II has an important bearing upon rural health conditions, as it refers to the appointment of county medical officers and county public health and housing committees. Section 68, ss. 1 provides that every County Council shall appoint a Medical Officer of Health, whose duties shall be those described by the general order of the Local Government Board. This Medical Officer of Health must devote the whole of his time to the duties of his office, and he can be dismissed from office only with the consent of the Local Government Board. Further, it is made imperative upon every County Council to establish a public health and housing committee, and it is the duty of County Councils to promote the formation or extension of building societies by making grants or advances to such societies or by guaranteeing advances made to them.

The Local Government Board requires streets intended for carriage ways to be not less than 36 feet wide, and of this 24 feet must be carriage way. Every street more than 100 feet in length must be constructed as a carriage way.

No domestic building can be erected unless it has in front of it an open space of 24 feet, measured from the external face of any wall or building it shall front, and at the rear of such building there must be an area of one hundred and fifty square feet, without any building thereon.

Town Planning and Co-Partnership

The particular features of the housing problem as represented by Mr. Vivian are comprised in what he terms Co-partnership. A concrete example of this idea is to be found in the Co-partnership Tenants Societies, which are registered under the Industrial and Provident Societies Acts and are limited as to liability. The capital is raised in shares of £1 to £10 each, payable in full or by instalments. The Act provides that no person may hold more than £200 in shares; but any amount may be invested as loan stock, a form of preference capital. The Committee or Board of Management of each society is elected by the shareholders, and provision is usually made for the representation of tenants on it.

The methods adopted are briefly as follow: A society purchases an estate of land in the suburb of a growing town and plants or lays out the same so as to provide (a) suitable playing sites for the tenants and their children; (b) reasonable limitation of the number of houses to the acre, so that each house may have a private garden; (c) pleasing architectural effects, both in the grouping and designing of the houses.

Substantially built houses, provided with good sanitary and other arrangements for the convenience of shareholders desiring to become tenants, are let at ordinary rents as soon as erected. The rent charged is sufficient to pay a moderate rate of interest on capital, usually five per cent. on share and five per cent. on loan stock, the surplus profits (after providing for expenses, repairs, and sinking fund) are divided among the tenant members in proportion to the rents paid by them. Each tenant member's share of profits is credited to him in capital instead of being paid in cash, until he holds the value of the house tenanted by him, after which all dividends may be withdrawn in cash.

In such societies, it will be seen that an individual can obtain practically all the economic advantages which would arise from the ownership of his own house. Capital is obtained at a rate of interest below which the individual could usually borrow to build or buy his own house, while the preliminary and other expenses are less than under the individual system. By taking as his security scrip for shares in an Association of tenant owners, instead of a deed of a particular site and house, the tenant averages the risk of removal with his co-partners in the tenancy of the estate. The value of his accumulated savings is therefore kept up and can be transferred if desired, at less cost than land or house property of the same value. The results of a workman's thrift are in this way mobile as well as his labour; and this is important if he is to get the maximum reward for his knowledge and industry. Further, tenants having a substantial share in the capital of the society administering the property, are interested not only in securing good results while they are tenants, but also after they cease to be tenants, in keeping up the permanent value of their capital.

The objects of these societies are:

(a) To provide expert advice, based on accumulated experience of how to buy, lay out, and develop an estate.

(b) To raise capital for such societies as join the Federation and accept its advice.

(c) To pool orders where practicable so that the benefits of wholesale dealing in building material shall be secured to the societies joining the Federation.

The Federation of Co-Partnership Societies

Each tenant society joining the federation must pay up share capital in the Federation proportionate to its assets, the amount required at present being £10 for each £1,000 of property. It is intended that a substantial share of any profit made by the Federation, after paying five per cent. on shares, will be first allocated to a Reserve Fund, after which the remainder will be divided amongst its Tenant Society members in proportion to the use they make of the Federation. The Federation is governed by a Board, the members of which are drawn from the Boards of the societies in membership with it. It has:

(1) A Finance Department for raising money either by issuing shares, loan stock, or mortgaging, to meet the cost of building on the various estates, and for advising societies on all matters of finance in developing estates.

(2) An Accountancy Department for giving advice to societies in the membership, concerning the best method of keeping accounts and for periodically seeing that the method is adhered to.

(3) A Buying Department through which orders are pooled for material and the best terms secured for cash and large dealings.

(4) A Surveying, Planning and Building Supervision Department, which is at the service of societies in laying out their estates and planning and building their houses, the experience and plans of one society being utilized as far as possible and desirable for others.

It is intended at an early date to undertake the insurance of the property of its members against fire.

There are at present in the Federation some fourteen societies owning an area of 615 acres, with 6,225 houses. The estimated cost, when completed, will be £2,105,990. The assets of the societies proper in the Federation on December 31st, 1909, was £524,300.

The methods adopted insures that the value of the completed property is represented in the books of the society as the cost of materials and labour without any addition for builders', contractors' or financiers' profit. The cottages, as soon as ready, are generally occupied by the members who, in addition to paying the usual market rent for the premises, increase their shareholding by small periodic payments until their investment reaches £50. Economy in construction is followed by economy in administration. Each tenant is required to pay for internal repairs apart from structural ones; thus they naturally keep down the cost of such work as much as possible. The society undertakes the external and structural repairs. The surplus profits being applicable to paying rent bonuses, each tenant is thus encouraged to do his best to help the society financially by recommending suitable tenants for new or unlet

cottages and by a general oversight and protection of property from damage. Loss of revenue by non-payment of rent is guarded against by the society having liens on the tenants' investments. The greater the efforts of the tenants in the direction of economy, the larger the rent bonus is likely to be. Most of the societies have not been at work long enough to get the full economic advantages of this system, or to allow of a final estimate being made of what these will prove to be. After meeting all charges and paying five per cent. interest on capital, the older societies up to now have been able to declare a dividend of 1s. to 1s. 6d. in the pound on rent. Each society creates a sinking fund at the rate of ten per cent. per annum, which, capitalized at three and a half per cent., will give the sum expended on the property in sixty years.